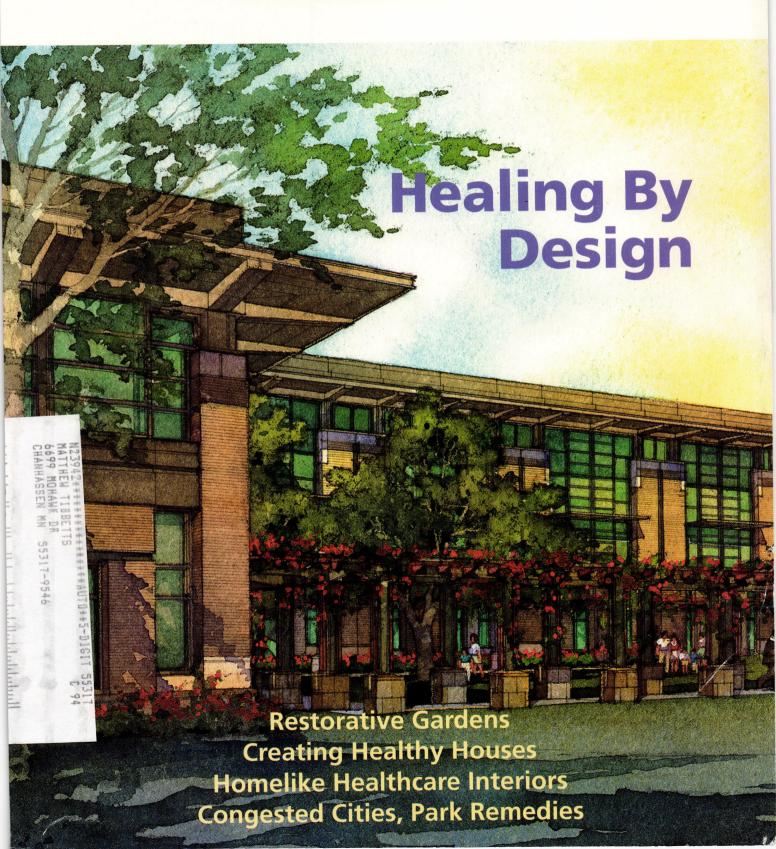
Architecture



WELLS CONCRETE PRODUCTS

precast prestressed concrete



Centennial Ramp Bloomington, MN

forming your future



University of North Dakota Grand Forks, ND

Building your structure may be short term, but the relationships we construct last forever. Our clients have come to expect experience, high-quality materials and workmanship, design support services, quick-turnarounds, accessibility and a high level of personal service. We partner with them from the beginning of the design process through the final construction details to ensure every project's success.

Give us a call today to learn how precast prestressed concrete can form your future.



Grand Forks, ND 800.732.4261



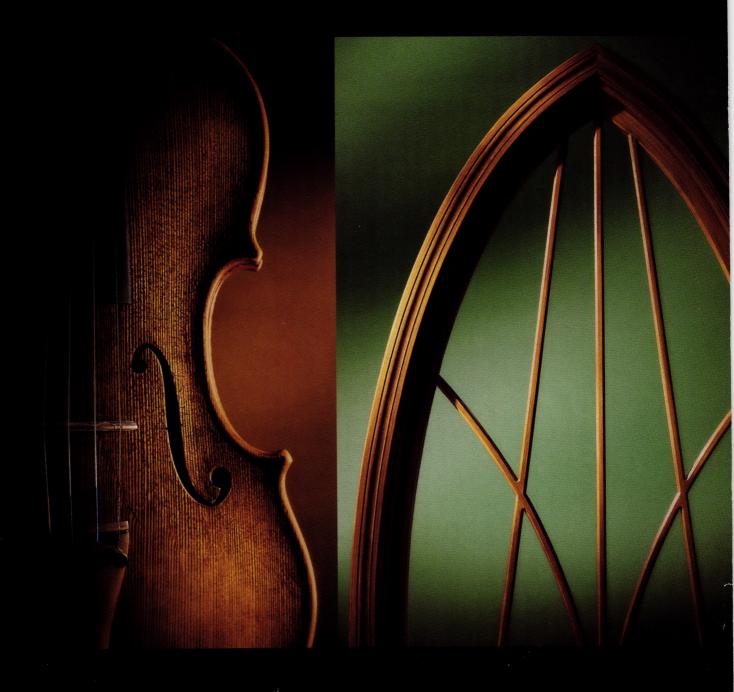
Wells, MN

800.658.7049

www.wellsconcrete.com

Like a fine instrument, the most beautiful windows are handcrafted, one at a time.

Why? Because, what is a window, but an instrument for turning light into music.



Fine architectural details, superior millwork and furniture-grade quality truly set Marvin windows and doors apart. Visit www.marvin.com or call 1-800-270-7460 (in Canada, 1-800-263-6161).



For Over 40 Years



Carlisle Innovations

FleeceBACK Membranes with Factory-Applied Tape

From minimizing business interruptions to simplifying your single-ply installations and improving reliability, seaming Carlisle's FleeceBACK Membranes with Factory-Applied SecurTAPE (seaming tape) make the grade.

Our FleeceBACK Membranes with SecurTAPE are selected for durability, energy efficiency and



SecurTAPE

outstanding performance outside the classroom. When you choose Carlisle, you also choose Architectural Consultants, our Manufacturer's Representative in the Minnesota Region. Together we'll provide what no other manufacturer can, over 4 decades of Experience, Innovation and Stability.

Call today and ask about our puncture, hail and wind speed warranties.

ARCHITECTURAL CONSULTANTS, A DIVISION OF GROUP4 MATERIALS, INC.

davem@archconinc.com

5500 Lincoln Drive, Suite 130, Edina, MN 55436 Phone: 952-935-9800 Fax: 952-935-9800

© 2003 Carlisle SynTec Incorporated Carlisle and FleeceBACK are Carlisle trademarks.



Contents

Departments

- Editor's Note Start Seeing Architecture
- Overview 2003 AIA Minnesota Honor Awards, off-gassing, ice palace, 2003 Rapson Traveling Fellowship, Preservation Alliance awards
- Newsmakers DSGW's nursing-home courtyard, Horty Elving's villages for Alzheimer's patients, HGA Gallery By Bette Hammel
- President's Message Howard F. Goltz, AIA, proposes to 17 better AIA Minnesota through three areas of focus while improving communication to the public By Camille LeFevre
- **Endangered** Oheyawahi/Pilot Knob in Mendota Heights was once a site of Dakota and Ojibwe rituals, but is now threatened by development By Robert Roscoe
- Citizen Architect Cleveland, Olmsted and Wirth expanded the concept of urban parks to include places for human health and recreation, as well as areas for environmental preservation By Phillip Glenn Koski, AIA
- **Practice** Ergonomics, ventilation, light, temperature and sensory stimulation contribute to healthy indoor environments By Linda Shapiro
- 25 Talking Point Our bloated car culture is feeding a rise in obesity, which walking could help alleviate By Bill Beyer, FAIA
- **Directory of Consulting Engineering Firms** 67
- **78 Project Credits**
- 79 **Advertising Index**
- Fast Forward St. Paul Healing Center for Victims of Torture, KKE Architects, Inc.



Cover

Cover: M.I.N.D. Institute Architect: Hammel, Green and Abrahamson, Inc. Illustrator: Al Forster

dedicated to treating children with autism and supporting research in neurodevelopmental disorders By Linda Shapiro

Projects

Serene Sensibility BWBR's expansion of an Illinois ambulatory-care facility introduces small-town character into a clinical setting By Barbara Knox

Care and Cure HGA's M.I.N.D. Institute in California is

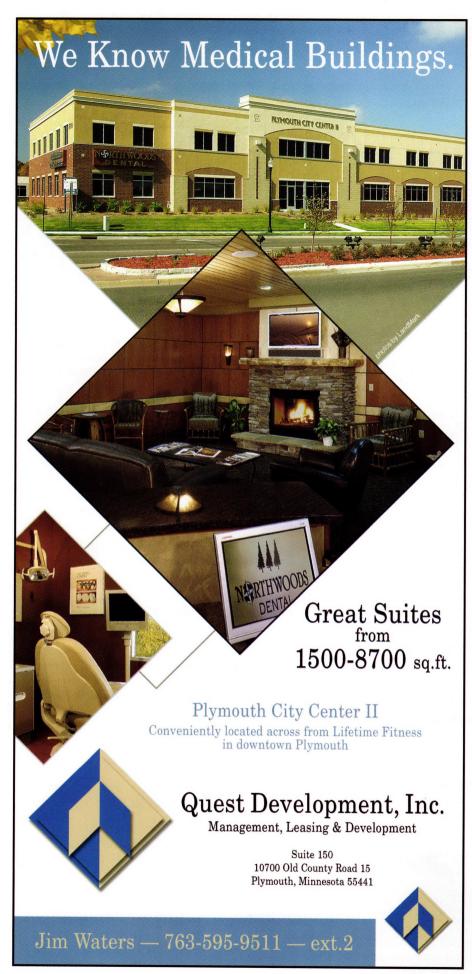
- **Dental Care** Paul Meyer Architects merges a lodge-style sensibility and high-tech amenities in a new dental office By Barbara Knox
- Clean Living McMonigal Architects creates a residential haven for a woman with chemical sensitivities and accessibility needs By Camille LeFevre
- Research Driven Perkins & Will designs a facility that supports University of Minnesota researchers in the biological sciences By Barbara Knox
- **Spiritual Matters** MS&R crafts a meditation center that's the symbolic heart of Hazelden By Camille LeFevre

Features

Natural Healing Landscape architects and their clients are designing gardens for spiritual renewal and to play a significant role in the physical healing process By Heather Beal

Architecture Minnesota Mission Statement

Architecture Minnesota, the primary public outreach tool of the American Institute of Architects Minnesota, is published to educate the public about architecture designed by AIA Minnesota members and to communicate the spirit and value of quality architecture to both the public and the membership.





Architecture Minnesota Staff

Editor: Camille LeFevre (lefevre@aia-mn.org) Graphic Design: Rubin Cordaro Design (r.christian@rubincordaro.com)

Advertising Sales: Judith Van Dyne

(vandyne@aia-mn.org)

Circulation Manager: Amber Wald (wald@aia-mn.org)

Publisher: Beverly Hauschild-Baron, Hon. AIA, (hauschild@aia-mn.org)

Architecture Minnesota Committee Phillip Glenn Koski, AIA. Chair John Carmody Thomas Fisher, Assoc. AIA Robert Gerloff, AIA Gina Grensing Robert Grundstrom, AIA Kara Hill, AIA Steve Johnson, Assoc. AIA Stephen Knowles, AIA Amy Nash Paul Neuhaus, AIA Charles Orton, AIA Gordon Strom, AIA

Tom Wasmoen, AIA

AIA Minnesota Board of Directors Howard Goltz, AIA, President Lee Tollefson, FAIA, President-Elect David Dimond, AIA, Past President Jon Buggy, AIA, Secretary Linda Ostberg, AIA, Treasurer Ann Voda, AIA, AIA Mpls President Richard Fischer, AIA, AIA St. Paul President Kenneth Johnson, AIA, AIA Northern MN President Ken Stone, AIA, Minneapolis Director Mark Swenson, AIA, Minneapolis Director Richard Carter, AIA, Minneapolis Director Maria Ambrose, AIA Minneapolis Director Michael Huber, AIA, St. Paul Director Jose Rivas, AIA, St. Paul Director Peter Villard, AIA, St. Paul Director Kane Tewes, AIA, Northern MN Director Tom Fisher, Assoc. AIA, CALA Representative Bill Hall, Hon. AIA, Public Member Cynthia McCleary, Assoc. AIA, Associate Director Lyssa Leitner, AIAS, AIAS Representative William Beyer, FAIA, Regional Director Jim Gersich, AIA, Regional Director Beverly Hauschild-Baron, Hon. AIA, Executive VP

Minnesota Architectural Foundation Susan Blumentals, FAIA, President Scott Berry, AIA, Vice President Craig Rafferty, FAIA, Secretary Ralph Rapson, FAIA, Treasurer Daniel J. Avchen, FAIA Sue Danielson Bretheim John Hamilton, AIA Howard Goltz, AIA Clint Hewitt Steven McNeill, AIA Frank Nemeth, AIA

AIA Minnesota Staff Beverly Hauschild-Baron, Hon. AIA,

Executive Vice President, Publisher (hauschild@aia-mn.org) Deanna Christiansen, Continuing Education Director (christiansen@aia-mn.org)

Jennifer Gilhoi, Communications Director (gilhoi@aia-mn.org)

Camille LeFevre, Editor, Architecture Minnesota (lefevre@aia-mn.org)

SallyJane Mathias, Exhibit Sales Director

(mathias@aia-mn.org)

Tom Moua, Financial Manager (moua@aia-mn.org) Dorothy Rand, Web Site Manager (drand@aia-mn.org) Judith Van Dyne, Advertising Sales Director (vandyne@aia-mn.org)

Amber Wald, Membership Coordinator (wald@aia-mn.org)

Architecture Minnesota is published bimonthly by AIA Minnesota. The opinions expressed herein are not necessarily those of the Board of Directors or the editor of *Architecture Minnesota*. Editorial office: International Market Square, 275 Market Street. Suite 54, Minneapolis, MN 55405. (612) 338-6763. FAX: (612) 338-7981. Web address: www.aia-mn.org. Note to subscribers: When changing address, please send address label from recent issue and your new address. Allow six weeks for change of address. Subscription rate: \$18 for one year, \$3.50 for single issue. Postmaster: Send address change to Architecture Minnesota at above address. Periodical postage paid at Minneapolis and additional mailing offices. Advertising and Circulation: Architecture Minnesota, above address and phone. Printing: St. Croix Press. Color separations: Southern Graphics Systems Copyright 2004 by Architecture Minnesota (ISSN 0149-9106).

Start Seeing Architecture

Contributors

HEATHER BEAL is director of business development for RSP Architects, Ltd., Minneapolis, and a journalist who writes about architecture, sustainability, and the visual and performing arts.

BILL BEYER, FAIA, is a principal with Stageberg Beyer Sachs, Inc., Minneapolis.

GINA GRENSING is a marketing director with LHB Engineers & Architects, Duluth, and a member of the Architecture Minnesota committee.

BETTE HAMMEL is a Wayzatabased journalist specializing in architecture.

BARBARA KNOX is a Minneapolis freelance writer and editor.

PHILLIP GLENN KOSKI, AIA, is an architect with Hammel, Green and Abrahamson, Inc., Minneapolis, chair of the Architecture Minnesota committee and a member of the Minneapolis Heritage Preservation Commission.

ROBERT ROSCOE is head of his own firm, Design for Preservation, Minneapolis.

LINDA SHAPIRO is a Minneapolis freelance writer and editor.

ears before the catchy "Got Milk?" advertisements and the myriad, derivative copycat ads it spawned, a bumper sticker caught my eye, "Start Seeing Motorcycles," as did its imitator, "Start Seeing Sculpture." While the subjects are different, the message is the same: To be aware of, and pay attention to, the things hidden in our blind spots—or risk certain peril.

Not seeing a motorcyclist, unfortunately, can have disastrous consequences, including injury or death. Someone's inability to notice sculpture is, of course, less mortally perilous, but might result in missing a moment of joy, beauty or even outrage. The risk is an aesthetic one and results in a life less rich.

Many people's inability to see the architecture around them carries the same risk. As AIA Minnesota's 2004 president, Howard Goltz, AIA, points out in this edition of Architecture Minnesota, architects help create the places in which we live, work and play, as well as where we worship, secure an education and receive medical care. The current attention paid to star architects notwithstanding, we often take the built environment for granted without comprehending how architects have secured the well-being of the public's health, safety and welfare—while often enhancing the aesthetics of daily lifethrough design.

Nowhere may this be more apparent than in healthcare design and often for good reason. As one of my colleagues at another architecture magazine recently pointed out, finding intriguing, well-designed healthcare projects for publication is extremely difficult. In fact, I avoided covering healthcare in Architecture Minnesota precisely because I feared good projects would be in scant supply. I had little to fear.

In assembling this healthcare-themed edition, in order to cover a scope of projects related to health, wellness and healing, I broadened the definition of "healthcare" beyond clinics and hospitals to include biomedical and neurological research facilities, a meditation center and a healthy house for a woman with chemical sensitivities. Not surprisingly, two discoveries came to the fore: a profound level of care, research and

dedication—on the part of the design teams-reflected in architectural details: and a desire—on the part of clients—to make interiors less clinical and more homey.



Featured in these

pages, for instance, is a dental office with the feel of a Caribou Coffee shop or up-north lodge. An ambulatory-care clinic uses a small-town theme to create gathering spaces and treatment neighborhoods. A research center and clinic for children with autism incorporates custom-designed opaque panels to suggest the elusive barriers separating these children from reality, while demarcating the spaces in which they wait with their families to be served.

Such examples demonstrate architecture at work for the public good. So what's the antidote to the blindness that prevents us from recognizing the holistic, pervasive nature of design in our environment? Attentiveness.

As James Boyd-Brent, a professor at the University of Minnesota and co-curator of Here by Design, a biennial exhibition of Minnesota design at The Goldstein Gallery, recently told me, "Design is a human activity that demonstrates a particular kind of attentiveness that people have or don't have, that indicates whether people are actually paying attention to what's going on around them, and not just to superficial or external things, but to things going on deep within their own sensibilities."

When architects and designers pay so much attention to the places in which we spend our lives—in particular, those healthcare facilities in which we're often most vulnerable—it behooves us to pay attention, to start seeing architecture, in return.

> Camille LeFevre lefevre@aia-mn.org

Canille heterre



Reliability

Affordability





Producing creative solutions for a variety of building projects is business as usual for the eight Minnesota Prestress Association members. Each MnPA member is dedicated to a higher standard in the design, production, and installation of prestressed concrete.



Each member maintains facilities which are PCI Certified, manufacturing only products made in accordance with stringent industry standards. MnPA member quality and reliance is available at an attractive price. The innovations offered by the eight MnPA members often result in lower overall project costs.

Minnesota Prestress Association



651-792-1470

Concrete Inc.

800-732-4261

County Materials Corp. 800-426-1126

Elk River Concrete Products 763-545-7473 Fabcon, Inc.

952-890-4444 www.fabcon-usa.com

Gage Bros. Concrete 605-336-1180 www.gagebrothers.com

Hanson Spancrete Midwest, Inc. 763-425-5555 Molin Concrete Products Co. 651-786-7722

Wells Concrete Products Co. 800-658-7049 www.wellsconcrete.com

www.hansonspancretemidwest.com

Calendar

February 15

Architects Shape the New Minneapolis: Jacques Herzog

Pantages Theatre Minneapolis, Minnesota (612) 625-9494

www.weisman.umn.edu

The lecture series, sponsored in part by AIA Minnesota, continues with the architect of the Walker Art Center expansion. Leading the conversation is Jeffrey Kipnis, professor, Knowlton School of Architecture, Ohio State University, Columbus.

Through February 29

Household Names:

The Designer in American Life

Minneapolis Institute of Arts Minneapolis, Minnesota (612) 870-3131

www.artsmia.org

The exhibition explores the designer's rise to recognition in the mind of the American public after the advent of industrial production flooded homes with domestic objects.

March 7

Architects Shape the New Minneapolis: Twin Cities Architects Roundtable

Coffman Memorial Union University of Minnesota Minneapolis, Minnesota (612) 625-9494

www.weisman.umn.edu

The lecture series, sponsored in part by AIA Minnesota, focuses on local talent with a roundtable featuring James Dayton, AIA, Garth Rockcastle, FAIA, Julie Snow, FAIA and Joan Sorrano, AIA, moderated by William Morrish, former director, Design Center for American Urban Landscape, University of Minnesota.

April 18

Architects Shape the New Minneapolis: Jean Nouvel

Pantages Theatre Minneapolis, Minnesota (612) 625-9494 www.weisman.umn.edu

The lecture series, sponsored in part by AIA Minnesota, continues with the architect of the new Guthrie Theater on the Mississippi.

April 21–23

EnvironDesign 8

Minneapolis Convention Center Minneapolis, Minnesota (561) 627-3393

www.environdesign.com

Janine Benyus, author of Biomimicry, William McDonough, FAIA, leading proponent of the "next industrial revolution," Richard Jackson, director, National Center for Environmental Health, Centers for Disease Control, and Eileen Claussen, president, Pew Center of Global Climate Change headline this year's conference.

Through August 22

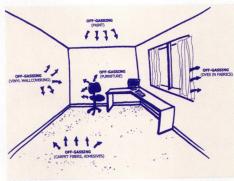
Symphony in Steel: Ironworks and the Walt Disney Concert Hall

National Building Museum Washington, D.C. (202) 272-2448 www.nbm.org

The skillful acrobatics of the ironworkers erecting the concert hall—a highly complex steel structure designed by Frank Gehry, FAIA—are the subject of Gil Garcetti's photographs, which also document the building's construction. The photographic series conveys the danger of the ironworkers' jobs and reveals the nascent sculptural form of Gehry's newest work.

INSIDER LINGO By Gina Grensing

Off-Gassing



ntebellum Southern women were known to collapse from "the vapors," mysterious odors that caused them to swoon or faint. This occurred, of course, in large part because women's corsets were so tight, they couldn't catch a decent breath. Today people are affected by vapors of a different sort; gaseous emissions from certain types of furniture, fabric, paint and carpet materials released into the air. This release is called "offgassing" and many of these gases are considered toxic. People especially susceptible to these odors can suffer from headaches, dizziness, respiratory conditions and worse. Usually, high offgassing vapor levels exist when the materials are first installed. The odors can decrease over time. In some cases, however, high vapor levels will persist for months or even years after a product's installation. Many new "green" products low in or free of off-gassing materials are increasingly available. But users of products with high off-gassing levels should be aware of the potential dangers of such products and methods of avoiding inhalation, in order to avoid suffering from the vapors!



Have breakfast with Beethoven.

CLASSICAL 89.3

Begin your day with "Top of the Day," weekdays 6 to 9 a.m., on Classical 89.3 — the only Twin Cities station that's all classical, all morning.

There's a difference. Discover it on Classical 89.3 WCAL.



Winter Carnival Ice Palace

he 2004 St. Paul Winter Carnival Ice Palace, the first to be built in conjunction with the carnival since 1992, will be on display for three weeks in January. The structure, designed by SLL/Leo A. Daly, Minneapolis, will use 27,000 blocks of ice cut from Lake Phalen and be constructed by volunteers and with in-kindcontributed materials. The palace will be located on the Cleveland Circle site across West Seventh Street from the Xcel Energy Center, in downtown St. Paul.

The design embraces ideas and concepts from previous palaces, yet brings its own unique elements to the tradition. For the first time since the 1941 palace, for example, visitors will be able to physically enter this ice palace and experience it from within. The design also includes an ice-skating rink, a feature last seen in the 1938 palace.

The 2004 palace will also include a wall of ice, constructed in a herringbone pattern, surrounding the palace grounds. Visitors enter the grounds through gates flanked by ice turrets 20 feet high. The palace courtyard includes a ring of ice thrones and a water fountain of ice that spews fire. The palace itself will be approximately 240 feet along the base and constructed with five large turrets, the tallest of which is 75 feet high.

SLL/Leo A. Daly's team of volunteers worked with the St. Paul Festival and Heritage Foundation since 2000 to create this year's ice palace. "The involvement in and enthusiasm for this project on the part of the community has been phe-



nomenal," says Frank Anderson, AIA, project manager.

While Anderson says he headed the effort for the firm, "the design of the ice palace was completely a team effort. We had a great time doing this project because we had the opportunity to interact with lots of new people who were all volunteering and because there was a lot of pride in the fact that we were designing an ice palace."

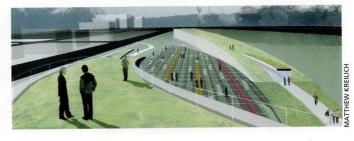
2003 Rapson Traveling Fellowship

atthew Kreilich, a designer at Hammel, Green and Abrahamson, Inc., Minneapolis, received the 2003 Ralph Rapson Traveling Fellowship, administered by the Minnesota Architectural Foundation. The purpose of the competition, held annually since 1989, is to offer young architects the opportunity to advance their architectural education by pursuing foreign or domestic travel and study. To assist in their education, \$12,000 is awarded to the winner.

The 2003 fellowship competition program was to create a theoretical design that commemorates Paul and Sheila Wellstone, and houses Wellstone Action, a nonprofit organization. The program included 1,000 to 2,500 square feet of main space; 2,500 square feet of offices for Wellstone Action; 400 square feet of storage; 450 square feet for restrooms; and parking for 20 to 30 cars.

The Linwood Park site faces St. Clair Avenue in St. Paul and commands a view of lower St. Paul and the Mississippi River. The triangular bluff park features a rolling park area on the northern half; the southern half is an unbuildable, steeply wooded bluff; a modest community-activities complex is located at the west end; and residences sit along St. Clair and immediately north. The proposed design had to relate to the character and aesthetic of the park.

Kreilich's entry began by "addressing the most fundamental of programmatic notions: the contributions of Sheila and Paul Wellstone," the jurors said. "It went further by linking these con-



tributions to a public space that provides both solitary and largeforum activities."

The jurors also commended the entry for "two bold architectural elements that rise toward each other in yin-yang fashion, to embrace not only the large public gathering space, but also to express the individualism of Paul and Sheila Wellstone. This courtyard celebrates the coming together of these two spirits in a public symbol. As the Wellstones were partners, so is Kreilich's solution a shared expression, which brings together sensitive earth forms with strong architectural gestures."

The jurors concluded by adding that the theoretical design is, "Beautifully conceived, thoughtfully communicated and creatively crafted. This solution addresses both process and product to memorialize the strength of character and commitment to values expressed by the Wellstones in their separate, but equal contributions."

THE BEST BUILDINGS ON EARTH ARE STILL BUILT BY HAND



More than a million bricks laid in a series of unique patterns, textures and colors make the Veterans Administration Health Care Facility in Detroit, Michigan, a striking example of masonry design by architects Smith, Hinchman & Grylls Associates. But masonry was chosen for more than its beauty and flexibility of design. Buildings built of masonry by skilled union craftworkers will outperform, outshine and outlast any others. Add to that the speed and efficiency of union masonry contractors, and you have a prescription for health care facilities that satisfies any schedule and budget. We're The International Masonry Institute, and we'd like to help you design and construct the best buildings on earth. Visit us on the World Wide Web at www.imiweb.org, or call us toll free at 1-800-IMI-0988 for design, technical and construction consultation.



The International Masonry Institute



The International Masonry Institute — a labor/management partnership of the International Union of Bricklayers and Allied Craftworkers and the contractors who employ its members.

uring AIA Minnesota's 69th annual state convention in November, the 2003 Honor Awards jury selected 13 Honor Award projects and one Divine Detail. This year's jurors were: Julie Eizenberg, president and principal-in-charge of architectural design and master planning, Konig Eizenberg Architecture, Santa Monica, California; Ted Flato, FAIA, principal, Lake/Flato Architects, San Antonio, Texas; and Scott Simpson, FAIA, president and CEO, The Stubbins Associates, Cambridge, Massachusetts.

The award-winning projects are listed below. Full coverage, with jury comments, will follow in the March-April 2004 edition of *Architecture Minnesota*.

AIA Minnesota's 2003 HONOR AWARDS

Honor Awards

Mill City Museum

Minneapolis, Minnesota Meyer, Scherer & Rockcastle, Ltd. Minneapolis, Minnesota

Emerson Sauna

Duluth, Minnesota Salmela Architect Duluth, Minnesota

Target Plaza South

Minneapolis, Minnesota Ellerbe Becket, Inc. Minneapolis, Minnesota

General Mills World Headquarters

Golden Valley, Minnesota Hammel, Green and Abrahamson, Inc. Minneapolis, Minnesota

Art of Chiropractic

Minneapolis, Minnesota LEAD, Inc. Minneapolis, Minnesota

Ramsey Town Center

Ramsey, Minnesota Elness Swenson Graham Architects, Inc. Minneapolis, Minnesota

Performing Arts Center, Illinois State University

Normal, Illinois Hammel, Green and Abrahamson, Inc. Minneapolis, Minnesota

Mills District Lofts

Minneapolis, Minnesota Paul Madson + Associates, Ltd./LHB Engineers and Architects, Inc. Minneapolis, Minnesota

301 Kenwood

Minneapolis, Minnesota Elness Swenson Graham Architects, Inc. Minneapolis, Minnesota

Pantages Theatre

Minneapolis, Minnesota Hammel, Green and Abrahamson, Inc. Minneapolis, Minnesota

Inver Glen Library

Inver Grove Heights, Minnesota The Leonard Parker Associates, Inc. Minneapolis, Minnesota

701 Washington Avenue Building

Minneapolis, Minnesota Hammel, Green and Abrahamson, Inc. Minneapolis, Minnesota

Koehler Residence

Seely Cove, New Brunswick, Canada Julie Snow Architects, Inc. Minneapolis, Minnesota

Divine Detail

Cellular Skin, Architecture & the Psyche Installation/ Pavilion

Weisman Art Museum Minneapolis, Minnesota Locus Architecture, Ltd. Minneapolis, Minnesota

THESE PROJECTS REPRESENT A RECENT SAMPLING OF OUR 2003 ACCOMPLISHMENTS

** Excelsior & Grand (St. Louis Park)

Elness Swenson Graham Architects Inc. Bor-Son Construction/Gresser Concrete Inc.

Park Center, Brooklyn Jr. High, Addition (Brooklyn Park)

Armstrong, Torseth, Skold & Rydeen Inc. Donlar Construction / Camco Construction Inc. / John Henry

Garden Terrace Addition (Little Canada)

Collaborative Design Shaw Lundquist Assoc. Inc./ Stang Concrete

Irondale High School, Addition (Shoreview)

Armstrong, Toresth, Skold & Rydeen Inc. Stahl Construction/Oakwood Builders Inc.

*Security State Bank (Howard Lake)

HTG Architects
Shingobee Builders/Royal Masonry

**Summit Place (Eden Prairie)

Miller Hanson Partners Weis Builders, Inc., Northland Concrete & Masonry Co.

Sam's Club (Bloomington)

Raymond H. Harris Architects & Associates Weis Builders Inc., Gresser Concrete/ Masonry

*Bloomington City Hall

Ankeny Kell Architects
M.A. Mortenson Co., Stellar Concrete
& Masonry

*Bloomington Maintenance

Kodet Architectural Group, Ltd. Steenberg & Watrud Construction

Cooper High School, Addition (New Hope)

Wold Architects And Engineers

St. Michael Middle School, Addition

Architects Rego & Youngquist Inc.
Donlar Construction

*Pet Crossings (Bloomington)

Winther – Johnson Robinson Kiffmeyer Inc.

Centerville Elementary School (Addition)

Armstrong, Torseth, Skold & Rydeen, Inc. Axel H. Ohman, Inc.

**Delano Fire Station (Addition)

JSS & H Architects, Inc. MSC Concrete (Ebert)

**Delano City Hall

Bonestroo, Rosene, Anderlik and Associates Inc. MSC Concrete (Ebert)

LDS Church (New Brighton)

Kodet Architectural Group, Inc. Morcon – Wesie Masonry

LDS Church (Lakeville)

Kodet Architectural Group, Inc. Morcon – Weise Masonry

Rockford Elementary School

Vetter, Johnson Architects, Inc. Kraus Anderson Construction Co., Camco Construction Inc.

U.S. Bank (Chanhassen)

Steiner Development Dayco Concrete Co.

Kindercare (Chanhassen)

Steiner Development
Steenberg & Watrud Construction

Armstrong High School, Addition (Plymouth)

Wold Architects and Engineers

Rockford High School (Addition)

Vetter Johnson Architects, Inc. Witcher Construction Co.

Lifestyle Center, Block E (Minneapolis)

Antunovich Associates, Architects Kellington Construction Inc.

Crown College (St. Bonifacius)

Vanman Companies Architects. CCS Concrete & Masonry Inc.

Olson Middle School, Addition (Bloomington)

Cuningham Group Architecture, P.A. Kellington Construction Inc., Bossardt Corp.

Mahtomedi High School (Addition)

Architects Rego & Youngquist, Inc. Olson Foote Masonry

Meadowbrook Elementary School, Addition (Golden Valley)

Cuningham Group Architecture, P.A. Weise Masonry

Sartell City Hall

Smiley, Glotter, Nyberg Architects, Inc. Quad City Masonry

*Centra Care (St. Cloud)

Hammel, Green and Abrahamson, Inc. Camco Construction Inc.

Sartell Water Treatment

Smiley, Glotter, Nyberg Architects, Inc. Quad City Masonry

Walker Elementary School Addition

Architectural Resources, Inc. Con's Masonry

Range Technical College (Hibbing)

Meyer, Scherer & Rockcastle, Ltd. Stretar Masonry

Westwood Elementary School (Zimmerman)

KKE Architects, Inc. B &L Masonry

Elk River High School, Addition

KKE Architects, Inc. Camco Construction

Elim Home, Addition (Princeton)

WAI Continuum
Camco Construction

Rogers Well House

Short Elliott Hendrickson Inc.

University Center (Rochester, MN) Field House

Ankeny Kell Architects, Inc. Darold Berger Masonry

Winona State University, Science Center

Perkins & Will Darold Berger Masonry

*Northfield Middle School

Rozeboom Miller Architects, Inc. J & K Masonry

Dover, Eyota Middle/High School, Addition (Eyota)

DLR Group Market & Johnson Construction

Bemidji State University

Native American Cultural Center AmerINDIAN Architecture Con's Masonry

Caledonia High School

Smiley Glotter Nyberg Architects, Inc. Market & Johnson Construction

Alexandria Community College

Perkins & Will Johnson Nelson Masonry

**Randolph School, Addition

Wold Architects and Engineers Met-Con Construction

Fisher School, Addition

Rozeboom Miller Architects, Inc. L & L Masonry

*St. Peter Community Center

Paulsen Architects Del's Construction

*St. Peter Library

Boarman Kroos Vogel Group Ted Kenne Construction

*Pipestone/Jasper High School

Rozeboom Miller Architects, Inc. Dale-Urevig Masonry

Willmar Hospital, Addition

BWBR Architects, Inc.

Alerus Bank (Grand Forks, ND)

Shoen & Associates B & M Masonry

Stamart Travel Center (Fargo, ND)

Shultz Torgerson Architect Mortenson Masonry

East Range Clinic (Hibbing)

Blessner Dolburg (Duluth) Stretar Masonry

Army Reserve, Addition (Fort Snelling)

RSP Architects
John Henry Masonry

Wahpeton, ND Armory

Zerrberg Architects Green Masonry

Winona Middle School

Wold Architects & Engineers Bor-Son Construction

East Grand Forks Library

J L G Architects B & M Masonry

St. Peter Waste Water Treatment

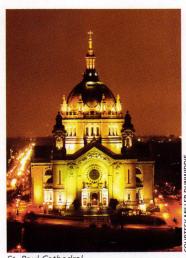
Bolton & Menk, Inc. Robert Carr Construction

- *Nationally recognized Ironspot brick
- **"NEW"sand struck series, distinct molded brick



Preserving Historic Resources

he Preservation Alliance of Minnesota, a nonprofit organization dedicated to preserving, protecting and promoting Minnesota's historic resources, issued 11 Preservation Alliance Awards to historic projects in 2003. The objective of the statewide program is to recognize properties that



St. Paul Cathedral.

exemplify the best work in preservation, restoration and adaptive reuse. Consideration is also given for the project's significance and local impact. "Our goal is to encourage projects that enhance a community's fabric from a historical perspective," noted Jack Manley, chair, Preservation Alliance of Minnesota. Awards went to:





Pierre Bottineau Library.

Cathedral of St. Paul, St. Paul

Client: Archdiocese of St. Paul and Minneapolis Architect: Miller Dunwiddie Architects, Minneapolis

Commercial House Apartments, **Spring Valley**

Client: Allman & Associates Architect: Yaggy Colby Architects, Rochester

Kemp Insurance and Real Estate, **Lake City**

Client: Bob Kemp, Lake City

Mill City Museum, **Minneapolis**

Client: St. Anthony Falls Heritage Center Architect: Meyer, Scherer & Rockcastle, Ltd., Minneapolis

Mill Ruins Park, **Minneapolis**

Client: City of Minneapolis Architect: MacDonald & Mack Architects Ltd., Minneapolis

Nicholas Lahr Building, St. Cloud

Owner: Thomas Grones, St. Cloud

Pierre Bottineau Library, **Minneapolis**

Client: Minneapolis Public Library Board of Trustees Architect: RSP Architects, Ltd., Minneapolis

Smith-Douglas-More House, Eden Prairie

Architect: MacDonald & Mack Architects, Ltd., Minneapolis

Swan Jewelry, **Lake City**

Owner: Steve Swan, Lake City

Olof Swensson Farm Barn Museum. Montevideo

Client: Chippewa County **Historical Society** Architect: Claybaugh Preservation Architects, **Taylors Falls**

Bed & Breakfast Award Henderson House, Henderson

Owner: Jeffrey DuCharme, Henderson



EUROPE IS FAMOUS FOR FOOD, STYLE AND FASHION.
NOW, WHAT WAS IT YOU WANTED IN YOUR NEW KITCHEN?



A JOIE DE VIVRE. A certain Continental flair. You can capture that essence in one striking statement with the beauty of Silestone natural quartz countertops. Europeans have already discovered its unique qualities. Silestones quartz is virtually non-porous. So it won't stain or scratch. And it's available in over 35 colors. So it's the ideal choice for radiant style with everyday practicality. For more information on the surface that has swept Europe and is now available here, explore silestoneusa.com. WHY WAIT FOR LOVE?

1-800-291-1311 www.silestoneusa.com

Locally Contact: Stone Systems at 651-683-9672

Leslie Paulson at 651-775-8117

Carlos Rocha at 651-775-8154



Healthcare Concerns, **Cultural Innovations**

BY BETTE HAMMEL

Viewcrest HealthCare Center, Duluth, demonstrates how an indoor courtyard, with skylights angled and sized so bedridden patients can see the sky, can provide the light and green space that, as research shows, contribute to the health and welfare of patients and residents in long-term-care environments. Rebecca J. Lewis, AIA, partner, DSGW Architects, Inc., Duluth, worked closely with the Minnesota Department of Health in creating the courtyard space. Prior to the project, the State of Minnesota didn't allow a nursing-home resident-room window to open into an interior space. With careful calculations of the view from the bed, she created the sky-lit court outside the windows of several existing rooms. The indoor/outdoor space has been filled with greenery to create a "central park." The success of the project has set the stage for similar projects to be constructed in Minnesota. ❖

The HGA Gallery opened in the College of Architecture and Landscape Architecture, University of Minnesota, in November with an exhibition honoring the 50th anniversary of Hammel, Green and Abrahamson, Inc., Minneapolis. Tom Fisher, Assoc. AIA, dean, CALA, noted the continuing emphasis the firm places on design by inviting Joan Soranno, AIA, principal, HGA, to lecture on her work. Students packed the auditorium to hear about her latest commissions, which include the Madison Children's Museum, Carleton College Art Building,

University of Alaska Museum, Schubert Theater, Minneapolis, and Bigelow Chapel for the United Theological Seminary. "Our work is an abstract contemporary expression of each institution and its context," Soranno said. "We try to embody each institution's spirit through form, light and space." For the Madison Children's Museum, for example, Soranno's design team played with shifting masses and came up with three triangulated tubes lined with color that slide, cantilever and angle toward the State Capitol. *

Architects Shape the New Minneapolis, an ongo-

ing series of public discussions sponsored in part by AIA Minnesota, continued in November with Frank Gehry, FAIA, Frank O. Gehry & Associates, Inc., Santa Monica, California. The designer of the Weisman Art Museum, Minneapolis, which spurred his rise to fame, is currently working on a major expansion for the museum with new brick-clad galleries and a silvery café projecting toward the river. Asked about other star architects— Jean Nouvel, Herzog & deMeuron and Cesar Pelli, FAIA—working on major cultural projects in the Twin Cities, Gehry described them as friends, but also as sibling rivals. "These firms really know how to build good buildings. You have to give them a chance to be built," he told the sold-out audience. Asked about his own buildings, Gehry replied in his casual way, "These buildings are just a blip in the history of the world. Sometimes they come out okay, sometimes they don't. I try not to take myself too seriously." ❖

Brewster Village,

Appleton, Wisconsin, may be called a skilled-nursing facility, but thanks to its thoughtful design by Horty Elving & Associates, Minneapolis, elderly residents call it home. In fact, they no longer want to be referred to as residents, but instead as villagers. According to Rick Moore, AIA, principal, the new facility had to accommodate 204 individuals with chronic illnesses, mental retardation, developmental disabilities and Alzheimer's disease. So the design team created 15 "households" that each serve up to 14 individuals requiring similar care. Each household includes private bedrooms with baths, a living and dining room, and a secure outdoor courtyard. In addition, three households are grouped around each of five common areas. A post-occupancy evaluation indicated the design is an unqualified success as conflicts between residents have been eliminated, visitors stay longer and the facility now has a waiting list for new villagers. *

Meet the design, budget and functional requirements for washroom accessories and toilet partitions in all building types







TCH Twin City Hardware



ANYTHING LESS
COSTS MORE."

723 Hadley Avenue N. Oakdale, MN 55128 (651) 735-2200 (651) 735-1800 fax

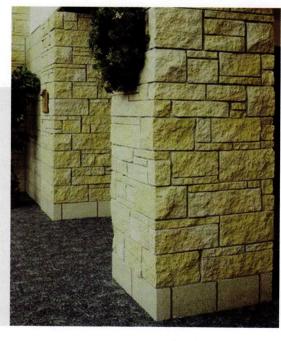
1-800-747-1980

5650 International Pkwy. New Hope, MN 55428 (612) 535-4660 (612) 535-2205 fax



Techture Stone is designed not only to be beautiful, but versatile. Through a configuration of color, texture, shape and size, the design you create is uniquely your own. In perfect harmony with the environment, Techture Stone liberates creativity without inflating the bottom line.







Howard F. Goltz, AIA

AIA Minnesota's 2004 president proposes to better the organization through three areas of focus while improving communication to the public

BY CAMILLE LEFEVRE

oward F. Goltz, AIA, was heading toward a promising career in medicine, with a specialty in genetic and viral research, when he found his true calling: architecture. In the 1960s, he earned a B. A. and a B. Arch. in architecture from the University of Minnesota and began working at such large firms as Setter, Leach & Lindstrom, Minneapolis, and Ellerbe Becket, Minneapolis. For seven years he was a partner in his own firm, Klapste Goltz Associates, Minneapolis. Not surprisingly, much of his work involves the design of healthcare and technology projects.

By the 1970s, Goltz was actively engaged in myriad aspects of AIA Minnesota. Over the years, his many volunteer efforts have included stints on the Programs Committee, Publications Committee, Continuing Education Committee, Council of Firms and Quality Based Selection Task Force. From 1983 to 1990, Goltz served on the AIA Minneapolis Board as a director, secretary and then president. He has also served as the secretary of AIA Minnesota.

Since 1996, he's acted as director, treasurer and president of the Minnesota Architectural Foundation. Goltz currently works at SLL/Leo A. Daly, Minneapolis, as a project manager and principal. As he embarks on a new year as president of AIA Minnesota, Goltz views his leadership role to include facilitation and liaison between AIA Minnesota, the architects it represents and the public. Architecture Minnesota spoke with Goltz about his priorities in the coming year.

Why did you accept the position as president of AIA Minnesota? What will the position allow you to accomplish?

To maintain and improve the strength of our organization, which in turn facilitates architecture's continual improvement, the essence of our organization and its purpose. AIA is the one organization with the ability to serve all architects and architecture. It supports the root of what an architect does: shaping a built environment that serves the public and benefits the public good. AIA Minnesota does this for our Minnesota members and the environments they create.

Can AIA be all things to all architects? As individual architects, we frequently practice in unique, specialized and sometimes isolated ways. Each specialization needs continual integration and alignment with the work of others and the goals of our profession. We need an organization like AIA, a network, to provide communication among ourselves and to the public, continually informing each other about what we're doing to build on the diverse benefits we provide. It's the one common, architectural meeting and "learning" ground available to all architects and the public.

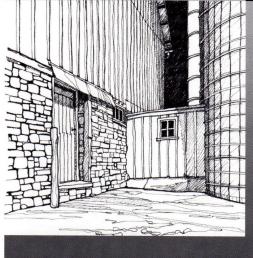
One of my primary goals is to increase public understanding and appreciation of what architects provide, so that together we can make the world a better place in which to live. Our work directly influences the quality of the

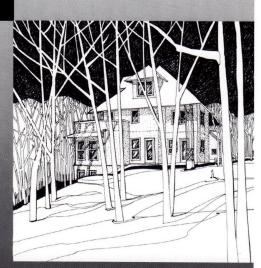
Continued on page 58



"One of my primary goals is to increase public understanding and appreciation of what architects provide, so that together we can make the world a better place in which to live."

There is no place like home.







McMonigal MArchitects
612.331.1244

COMING SOON and IN PLACE two UNIQUE marketing

OPPORTUNITIES for AIA Minnesota firms. CALL Judith Van Dyne

now for information and advertising rates,

612/338-6763

COMING SOON and IN PLACE announcements are placed by the firms listed. For rate information call AM at 612/338-6763

Oheyawahi/Pilot Knob

Mendota Heights, Minnesota

BY ROBERT ROSCOE

n the earliest days of white European exploration in Minnesota, travelers like Joseph Nicollet passed near a large promontory along the southern edge of the confluence of the Minnesota and Mississippi rivers, and sometimes witnessed medicine ceremonies performed by Dakota and Ojibwe tribes. The Dakota called the site "Oheyawahi," meaning "a hill that is much visited." According to early missionaries Samuel and Gideon Pond, the Dakota believed "the mouth of the Minnesota River lies immediately over the center of the earth and under the center of the heavens." While rising from the waters at the joining of the two rivers, Unktehi (a giant and powerful being) pushed up the land called Oheyawahi.

The Dakota's neighbors, the Ojibwe, called the bluff "Saugeaukee," a name that combines their words for "river's mouth" and "ground." For both tribes, the site's function as a meeting place for medicine ceremonies, burial events, pipe ceremonies and other ritual gatherings made it an important facet of their lives and cultures. In the 1840s, Seth Eastman, commandant of Fort Snelling, documented the site and the tribes' ceremonies there in several paintings.

Riverboat crews, however, gave the knob-shaped landform the name "Pilot Knob," as it served as a navigation device and landmark. The site gained further historical significance as the location for negotiations over and the signing of the Treaty of 1851 between the U.S. government and the Mdewakanton and Wakpehkute Dakota, which opened vast amounts of land in Minnesota, South Dakota and Iowa to settlement by European Americans.

In the past 160 years, portions of Oheyawahi/Pilot Knob have been developed. Part of the south slope is an office park. Acacia Cemetery, plotted in 1926, occupies 50 acres on the east side with ground-level grave markers shrouded by tree cover. Highway 55 and the Sibley Highway were built in the 1920s at the base of the northern and eastern slopes in a way that defines Oheyawahi/Pilot Knob's boundaries. The eastern site boundary touches the village of Mendota, one of Minnesota's earliest settlements. Remarkably, the most prominent aspect of Oheyawahi/Pilot Knob—its northeastern and northern faces—has remained free of development that would have lessened its landmark character.

As historians Bruce White and Alan Woolworth wrote in their application to add the site to the National Register of Historic Places, "Changes within Oheyawahi have not irreversibly affect-



Once used for Dakota and Ojibwe religious ceremonies, the area is now targeted by developers who intend to build townhouses on the historic site.

ed the site's historic and sacred character. The site retains an undeveloped character in the midst of suburbia and portions of the property still provide the extensive views described historically."

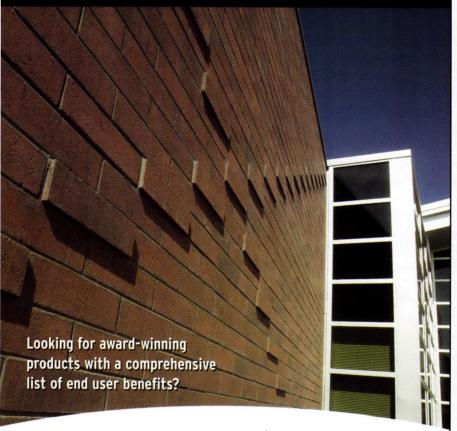
Today, however, areas of this cultural and historical site have been targeted by developers who are asking the City of Mendota Heights to rezone certain land parcels for development: 157 townhouses on 25 acres are proposed for the 160-acre site. Opposing this plan is a coalition of several organizations, mainly made up of Native American communities, environmental organizations, birdwatcher groups and the Preservation Alliance of Minnesota, which placed Oheyawahi/Pilot Knob on its 2003 List of Endangered Historic Properties.

Because most of the proposed townhouses would be built on the site's historic northeastern slope, those opposing the development say the construction would materially degrade the site's cultural and historic character. Mendota Heights city officials seem sympathetic to the historical concerns while espousing the need for additional housing.

According to Jim Danielson, city administrator, Mendota Heights, the city responded to a request by the Mdewakanton Dakota Community to conduct a comprehensive study to identify adverse effects of the development. The proposed developer, Minnstar Builders, Inc., Edina, was responsible for commissioning

Continued on page 60

Benefits Package



Turn to County Materials—your resource for products that add dimension, durability, fire resistance and value to your structures. Whatever the design, add our products to your project's benefits package.



New! Optimum Series Oversized Full Face Split Masonry

- > Expanded design possibilities
- > Dynamic, impressive sizes
- > Vintage appearance



TURN TO COUNTY FOR:

- > Premier Glazed™ & Ultra® Burnished Masonry
- > Decorative Masonry
- > Brick & Stone
- > Hollowcore Planks
- > Ready-Mix Concrete*

*Servicing the East Metro



PROUD TO BE AMERICAN BASED & AMERICAN MADE.

Maple Grove, MN (763) 425-5789 • Roberts, WI (715) 749-4121

Damon Farber Associates

Landscape Architects



3 3 2 - 7 5 2 2

Urban Remedy

Cleveland, Olmsted and Wirth expanded the concept of parks as "lungs" of a city by setting aside urban land for human contemplation and recreation, as well as for environmental preservation

BY PHILLIP GLENN KOSKI, AIA

he first landscape architect of the park systems for both Minneapolis and St. Paul, Horace W. S. Cleveland, came to Minnesota at the end of his career as an experienced designer who had written much and spoken often about the civic benefits of a public park system. Already in his late 60s, Cleveland recognized he had little time to

CHARREN CHRON

"Lake Harriet Pavilion, Minneapolis," ca. 1915, Minnesota Historical Society Photograph Collection.

build the parkways, gardens and promenades we enjoy today. He opted instead to till the ground with words, inspiration and sometimes stern admonishments. Cleveland recognized his medium was not soil and trees, but time and opportunity. It's likely he would barely recognize the park as we use it today, but his rhetoric remains as powerful as it was then: Set parkland aside now—let the generations that follow figure out how to use it.

It's easy to take for granted the things that once seemed merely extravagances. Since its introduction a century and a half ago, the public park has evolved from municipal nicety to urban necessity. Public parks not only provide cities with their best post-card moments, they are one of those anomalies of modern civilization that really mean all things to all people. Depending on your perspective, a park is variously a contemplative scene, a bird sanctuary, a jogging route, a soccer field, a rose garden, a children's playground, an arena for political expression and sometimes a festival site.

This conception of the public park as a multiuse zone for recreational activity is relatively new. Two hundred years ago, the urban park was, quite frankly, a duller place. Parks, initially, were simply attempts to bring the natural benefits of the country into the city—to create a small plot of Elysium within the belly of Gotham.

The public park is fundamentally an urban phenomenon, evolving to satisfy those human needs—physical, psychological, spiritual and ecological—that cannot be met by the city alone. To say that the public park is a cure for the ills of the city is not merely figurative, but offers a serious departure point for a deeper con-

sideration of the relationship between the history of the public park and a parallel development in the science of medicine and public health.

Preceding construction of the first truly "public parks" (urban gardens had been around for centuries, but were always privately owned), 18th-century Enlightenment thinkers had estab-

lished a rudimentary scientific understanding about the anatomy of the human body, its diseases and the benefits of hygiene. This knowledge, in turn, inspired imaginative social reformers, somewhat inaccurately, to draw further parallels between the functions of the body and those of the city.

Indeed, the first examples of urban greenspace served little purpose except to remedy the ill-affecting conditions of the city around them—namely, to cleanse the heavy, putrid air of the increasingly crowded and industrialized "urb." The writings of urban planners of the time compared streets and roads to the arteries and veins of the body, while parks functioned as the "lungs" of the city, refreshing the air and invigorating its residents.

Regent's Park in London, designed by John Nash in 1814, was one of the first ambitious attempts to apply Enlightenment principles of urban design to a healthy effect. Carved out of a dense tangle of streets and residences in the center of the city, the design included a large "country park" girded by wide boulevards. Nash's design for Regent's was straightforward, consisting of a large, flat, grassy field devoid of trees and fenced all around. The beneficial air produced was to be imparted to city residents by driving around the park's perimeter—by circulating around this urban "lung."

In its original design, the park forswore the romantic guise of the English Landscape Gardening School. In strict accordance with Enlightenment theory, Nash's park replicated nature's

Continued on page 60



We'll change the way you think about Insulation

Rising energy costs. Noise pollution. Allergies, asthma, and mold.

Architects today face problems that weren't even issues when conventional insulation products were developed. It's reassuring to know that Icynene® is a superior insulation system that protects buildings like no other insulation can.

When sprayed into walls, ceilings, floors and basements, Icynene® softly expands to form a protective barrier. Harmful outside air – including pollutants and noise – *stays out*. Healthy inside air *stays in*, ensuring a Healthier, Quieter, More Energy Efficient® structure.

It's the superior insulation system for today's buildings.



Contact your local Icynene Licensed Dealer or visit icynene.com

Foam Boys Insulation Alexandria, MN 320-834-3485 <u>kenl@fo</u>amboys.com

Midwest Foam Systems Albert Lea, MN 507-373-3530

Advanced Insulation Solutions Brookings, SD 605-693-3854 jpete@itctel.com Insealation Solutions
Fargo, ND
701-238-6269
iceman701nd@aol.com

Northern Insulation Products Gibbon, MN 507-834-6519 northern-insulation.com

Energy Smart Insulation Minneapolis, MN 763-571-2363 energysmartinsulation.com Minnesota Insealators Monticello, MN 763-295-0788

Insulation Concepts Inc.
Owatonna, MN
507-451-6222
JTJohnson55060@yahoo.com

WFI Insulation, Inc. Prescott, WI 651-437-2933 wfionline.com West Central Insulation Inc. Spicer, MN 320-796-5727

Heim Insulation Rochester, MN 507-287-0339 heiminsulation.com

T & T Insulation Niagara, ND 701-397-5852 AKE0T@yahoo.com For superior insulated residential and commercial buildings, specify The Icynene Insulation System®

- It's environmentally friendly non-toxic, formaldehyde free, and odorless.
- Helps prevent condensation related mold and mildew. Proven not to be a food source for mold.
- Adds value to the buildings you design by reducing energy costs by up to 50%, enhancing sound proofing and improving air quality.
- Effectively insulates all types of construction.
- Simplifies the job of insulating complicated designs and framing details.
- Call us for a FREE copy of The Icynene Architect's Tool Kit.
 A valuable design resource for the project team (1-800-758-7325)



Icynene is proud to be an AIA Continuing Education Provider.
Visit Icynene.com for more information about our

CEU program.

The Healthy Human Habitat

Ergonomics, ventilation, light, temperature and sensory stimulation all contribute to the creation of indoor environments that foster occupants' health, productivity and sense of well-being

BY LINDA SHAPIRO

"Standard high-tech

buildings are the

antithesis of how

humans operate.

We are free-roaming

animals that long for

open spaces, but are

trapped in small,

barren cubicles and

buildings with

windows that

don't open."

endy Morris and Ned Rousmaniere thought they had bought the perfect house. They moved in and began remodeling the 1923 duplex in Minneapolis, tightening up leaks and adding additional insulation. Six

months later, they were both suffering from respiratory problems and fatigue. After months of trying to diagnose the problem, they called in a "house doctor" who discovered that mold had penetrated the insulation and hydrocarbon gas was leaking into the air from incorrectly vented gas appliances.

Morris and Rousmaniere evacuated their house for nine months while specialists cleaned up what had become a toxic-waste dump. While the air-quality problems had existed before they moved in, the couple had inadvertently exacerbated them by insulating their house so tightly it could no longer breathe.

Their story is not unusual. Technological advances innovated after the energy crisis of the 1970s allowed buildings and homes to become virtually sealed, which in turn caused ventilation and pollution problems by eliminating fresh air and trapping moisture and toxic gases. Energy efficiency was often gained at the cost of indoor-air quality, causing an increase in respiratory illnesses and allergies, and resulting in millions of lost workdays and extensive litigation.

The Environmental Protection Agency has found that since 1960, 30 percent of the commercial buildings constructed have been deemed unhealthy in terms of their indoor environments (which the EPA defines as a conditioned—heated or cooled space separated from the outside environment by the building envelope). The increasing prevalence of chronically unhealthy buildings, which scientists now refer to as "sick-building syndrome," is the result of chemical and natural pollutants combined with inadequate levels of ventilation, lighting, temperature control and sensory stimulation.

These factors produce a range of problems, from mysterious illnesses like Legionnaire's disease to lower productivity and

> worker satisfaction. "Sick buildings have often been called a disease in search of a source," says Bob Moffitt, communications manager, Healthy House Program, American Lung Association, St. Paul. He cites the case of the Capitol Square Building in St. Paul, demolished in 2000 at a cost of \$40 million because workers were showing a variety of symptoms and no one was able to identify the problem.

Over the past decade, architects and researchers have stepped up their investigations of how to make buildings and homes more energy efficient, while improving occupants' health, productivity and sense of well-being. Researchers at the Center for Sustainable Building Research at the University of Minnesota have compiled information (available at www.csbr.umn.edu) about what architects, designers and builders need to provide in order to ensure people can both survive and thrive indoors. Specialists connected to the center are working on such areas as appropriate ventilation, adequate lighting, thermal comfort, ergonomically correct furniture, and visual and sensory stimulation in order to

make interiors both healthier and more habitable.

dows are essential to a healthy indoor environment—both physically and psychologically. "When people are overheated, they want immediate relief," says Jim Wise, adjunct professor, psychology, environmental sciences and regional planning,

For example, many researchers believe that operable win-

Continued on page 62

SIMPLIFY YOUR A/V DESIGNS



Boardrooms. Videoconference Rooms. Training Rooms. Auditoriums.

Whatever your needs, AVI Systems designs and integrates them all with our design build process. The AVI advantage is a simplified process that we've discovered is the fastest, most cost-effective, high quality method of taking projects from concept to completion.

- Collaborative Design Services
- Reliable Budgetary Information
- Systems Engineering Services
- Trusted Experience since 1974

Call AVI for a review of your A/V requirements to determine a solid strategy for your system design and implementation.



FOCUSED ON YOUR SUCCESS

Tel 952.949.3700 Fax 952.949.6000 6271 Bury Drive, Eden Prairie, MN

www.avisystems.com A/V Systems Designs, Integration & Service

SIMPLY BRIGHTER.

"After 35 years of working with light, I've learned a great deal about the properties of good lighting. Let me use that knowledge to improve the lighting choices and ambience of your next project."

- Jim Marvy

SIMPLY MARVY

Lighting Design 952.474.1923



QUALITY **CRAFTSMANSHIP** TRANSFORMS YOUR DREAMS INTO REALITY

Questions?

Call Us At (651) 645-0208

www.mnlath-plaster.com

N L A \mathbf{T} H S \mathbf{P} L A S \mathbf{T} \mathbf{E} \mathbf{R} ${f B}$

U

R

 ${f E}$ A

 \mathbf{M}

Fat City

BY BILL BEYER, FAIA

n Tanzania in 1977, researchers uncovered the earliest evidence of humanoid bipedalism: the fossilized footprints of a pair of upright walkers from 3.7 million years ago. Whether they are related to Australopithecene Lucy or to yet undiscovered prehuman types, we only know they walked like we do. Our human forebears eventually walked out of Africa, from Asia via Alaska to America, and finally, almost everywhere.

Despite our natural bipedalism, however, we're fast becoming sedentary, with results disastrous to our health. In fact, a hot topic in the news lately has been walking as a recommended tonic against the increasing prevalence of obesity. The Centers for Disease Control and Prevention has developed the "Kids-Walk-to-School" program to improve health by selling the importance of physical activity and walkable communities. A study by the National Center for Smart Growth in College Park, Maryland, blames sprawling suburban development patterns for discouraging walking and contributing to the fattening of America.

Our bloated car culture feeds the rise in obesity. The U.S. Department of Transportation recently reported that the average household now has 1.75 drivers, but 1.90 personal vehicles, and that the main use of these cars is for short trips. In some cities, pedestrians are so rare that they're assumed to be motorists who have run out of gas.

Cars occupy so much of our land that walking has become increasingly dangerous. Walking from one big-box retail outlet to another has been made so inconvenient that driving a block is often the only safe choice. A Rutgers University study found that American walkers are two to six times more likely to be struck by cars than Dutch or German pedestrians, even though many more Europeans than Americans walk or bike.

Unlike suburbs, most central cities grew up in the pre-auto culture, so reclaiming a walking pattern of life in the city is easier. An Op-Ed writer in the June 20, 2003, Star Tribune opined that "aesthetics are crucial to a walkable city," and compared Minneapolis unfavorably to Portland, Washington, Chicago, New York and even Miami Beach in this category. He noted that Minneapolis's architecture and design are the biggest deterrents to walking, making exception, of course, for the chain of lakes and the central riverfront with its pedestrian-friendly Stone Arch Bridge.

Last year I began my own lunchtime walking for exercise and health, and found the riverfront to be especially salubrious. The Stone Arch Bridge alone has made the riverfront more physically accessible; now we need to design more street-oriented places to engage our senses and attract us every day. Minneapolis Mayor R. T. Rybak's proposal to convert the Main Post Office to housing and retail would help by unlocking the building's riverfront arcade for human activity.

Ultimately, what makes a city livable are opportunities to walk, incentives to walk, rewards for walking, respect for walkers and the celebration of people walking together on the streets. In Wanderlust, her rambling book of essays on the history of walking, Rebecca Solnit reviews the walking philosophers of yore, from Rousseau to Kierkegaard, Wordsworth and Thoreau. She celebrates the world's few remaining walking cities, including Paris and San Francisco, concluding that: "A city is a language, a repository of possibilities, and walking is the act of speaking that language."

We can remain on our current treadmill to nowhere, bulging 'burbs hanging over our beltways, or we can design our cities to speak the language of walking. The choice is ours: peripatetic or peri-pathetic.

"The treadmill is a corollary to the suburb and the autotropolis: a device with which to go nowhere in places where there is now nowhere to go."

> Rebecca Solnit, Wanderlust

Care and CURE

A MULTIDISCIPLINARY FACILITY DEDICATED TO AUTISM TREATS CHILDREN, SUPPORTS FAMILIES AND FACILITATES SCIENTIFIC RESEARCH By Linda Shapiro



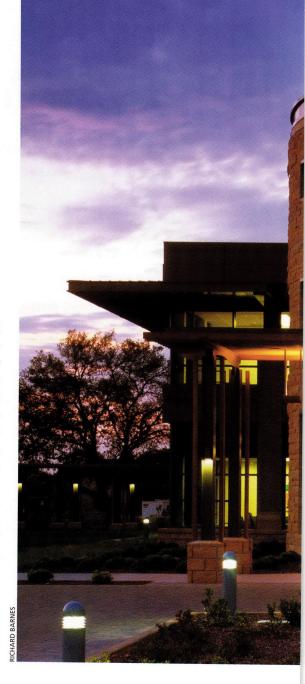
Design team (left to right seated): Bill Blanski, AIA; Rich Firkins; (standing) Chris Vickery; Jim Butler, AIA; (not pictured) George Gorbatenko.

When Chuck Gardner learned his child had autism, he recalls being told to "find an institution for our child and get on with our lives." Instead, he joined with four other fathers of autistic children, all of whom were frustrated with their inability to find adequate information about autism and its treatment, and secured funding to support a new multidisciplinary facility dedicated to autism spectrum disorders, or ASDs, and other neurological disorders.

In 2003, the Institute for the Medical Investigation of Neurodevelopmental Disorders (M.I.N.D. Institute) opened on the University of California-Davis Medical Center campus in Sacramento, California. Designed by Hammel, Green and Abrahamson, Inc., Minneapolis, the 136,000-square-foot complex consists of three buildings: a resource center; an outpatient clinic and academic office building; and a laboratory for research in biology, genetics and human tissue. A fourth building, a laboratory for psychological research, has not yet been built.

"We needed to create a world-class facility where critical research is occurring, but also a haven for families," says Bill O'Malley, AIA, principal. The unique facility's creation began with extensive research into ASD, which included interviews with physicians, researchers and the parents of autistic children; tours of ASD schools; and research into the trends and issues surrounding children with ASD.

The design team's investigations led to a facility that promotes research, creates a soothing and intimate atmosphere for the children and their families, and allows families, researchers and physicians to interact on a daily basis. Moreover, the facility incorporates a unique de-



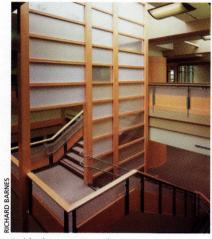
sign structure that makes autism visible. "At the M.I.N.D. Institute, nobody will research autism and not see an autistic child," insists Bill Blanski, AIA, project designer.

"The interaction begins with the fact that everyone who comes to the M.I.N.D. Institute enters at the front door," he says. Children and parents, researchers, physicians and students alike cross paths as they enter, and continue to interact throughout the facility, because everyone shares the same stairways and hallways. Throughout the complex, the architecture orchestrates the "necessary nuisance"—chance encounters on stairs, in courtyards and around the coffee machine that can encourage breakthrough ideas.





The M.I.N.D. Institute's limestone rotunda (above) welcomes families, staff welcomes families, staff and researchers, all of whom use this main entrance. A variety of courtyards on the campus, including one with oaks transplanted from within the site (left), function as gathering places.







Inside the entry rotunda, maple-wood paneling and a mix of light sources create a welcoming, warm atmosphere (opposite). Throughout the building, "emerging walls" create spaces and represent the gradual emergence of a child from the haze of autism (above and middle), while maplewood ceiling trellises give waiting areas a sense of enclosure (far right).

The resource center consists of a library, an auditorium, conference rooms, a café and a two-story main-entry rotunda that functions as the building's hub. The rugged warmth of the rotunda's golden limestone façade extends to the inside, where maple-wood paneling and abundant natural light create a soft, burnished glow. Since incandescent lighting can be disorienting to autistic children, indirect fluorescent or frosted light is combined with natural daylight. Deep horizontal metal mullions on the windows block glare.

The adjacent red-brick clinic and academic building contains two waiting areas and several consultation, family and exam rooms. Because autistic children often develop a fear of clinics, the design team incorporated an extraordinary level of detail into the project to ensure the children's comfort while fostering interaction.

For instance, the waiting areas are open to encourage connections between people. But because enclosed spaces have a calming effect on ASD children, these areas also convey a sense of intimacy through a system of overhanging maple-wood trellises. "Research has determined that warm tones are soothing to children with ASD," explains Chris Vickery, interior designer, "so we incorporated earth tones and beiges, as well as warm wood tones in maple and walnut." Each waiting area also includes several smaller family zones furnished with aquariums and televisions, which Vickery says are "animated things to look at that do not involve touch,

the latter of which can be disturbing to autistic children."

Throughout the building, wood-panel frames inset with Imago (laminated acrylic with fabric sandwiched in between to produce various degrees of opacity) suggest the elusive barriers that can separate autistic children from reality. Blanski observed autistic children ages 2 to 18 before creating the panels. These "emerging walls," as he calls them, represent the gradual emergence of a child from the haze of autism as they undergo treatment, as well as "a spectrum of translucencies that symbolize stages of interaction the children experience."

In the examination rooms, maple-wood exam tables merge with maple-paneled walls, providing a consistent element that ties in the visual environment with the waiting areas and minimizes jarring changes for the children. Desks with softly rounded contours ensure children won't injure themselves. Sinks are enclosed in cabinets with concealed latches because the sight and sound of running water can over-stimulate children with ASD. Family consultation rooms accommodate both children and adults with adjustable tables and chairs (so autistic children can feel grounded with their feet touching the floor) and beanbag-style chairs on which children can roll, curl up or otherwise relax.

Residential-scale rooms where researchers can observe families in a homelike setting incorporate such domestic amenities as kitchens and overstuffed furniture. Other details throughout the building include random tile configurations and solid fabrics, because autistic children tend to fixate on repeated patterns and lapse into "stemming mode," wherein they count or order the pattern, possibly in an attempt to "solve" it. Wooden railings are both pleasant to touch and difficult to climb.

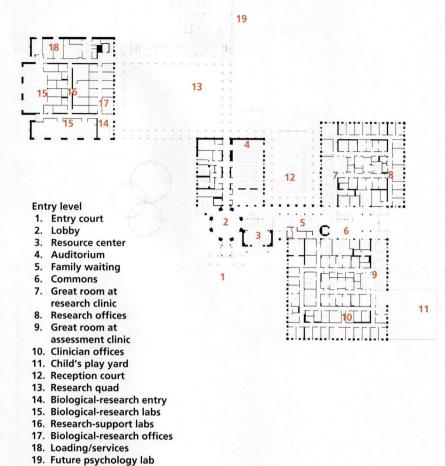
The clinic areas fulfill physicians' needs through an efficiently planned series of exam/assessment/consult rooms. "These areas are much more than a place where a doctor sees a patient," Blanski says. "They are actually highly sophisticated research centers with cameras, audio, one-way glass, special lighting considerations for filming, options for DVD recording, and Internet up-links strategically and carefully concealed to be as unobtrusive as possible for the child while providing a high level of productivity for the doctor."

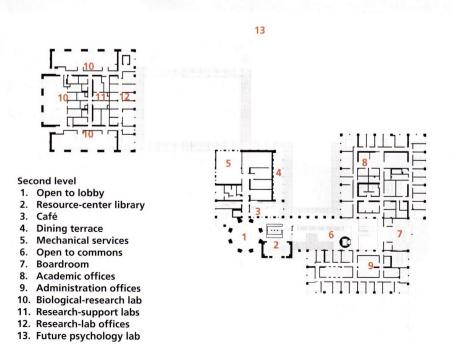
Researchers work in a laboratory with flexible zones they can rearrange. Offices for the lab's leaders and their assistants (post-docs and fellows) are on the fourth side, which faces one of many outdoor courtyards that connect the various buildings on the campus.

One courtyard, for instance, contains conventional swings, slides and platforms in primary colors where the children can be observed in a traditional play environment. Other exterior spaces include benches under 60-year-old oak trees transplanted from within site or "hearth windows" with wide stone sills on which people can sit.

As a whole, the complex functions as a community setting that "gives everyone lots of elbow room to hang out and interact with each other," Blanski says, while facilitating research and encouraging scientific breakthroughs. "A project like this," Blanski adds, "is one of the most rewarding experiences a design team can have."

Institute for the Medical Investigation of **Neurodevelopmental Disorders University of California-Davis Medical Center** Sacramento, California Hammel, Green and Abrahamson, Inc. Minneapolis, Minnesota







Serene SENSIBILITY

AN ILLINOIS HEALTH CENTER REMODELS AND EXPANDS TO CONVEY A SMALL-

TOWN CHARACTER THAT INVITES AND COMFORTS By Barbara Knox



Design team (left to right standing): Ananth Shankar, AIA; Jeff Krueger; Roger Larson, AIA; Brad Fitzsimmons; Susan Clark; Glenn Manni; David Leighly, AIA; Jim Davy, AIA; (left to right seated): C. Jay Sleiter, AIA; Pete Mikkelson.

When the residents of McHenry, Illinois, were asked for their opinions on a proposed expansion to the local medical center, there was consensus on the look and feel of the facility. "Their message was clear: Get rid of the sterility and make it more homey," recalls Sandra Davis, vice president of operations, Centegra Health Systems, which runs the Northern Illinois Medical Center Ambulatory Care Center. "We needed to take the edge off the experience of coming to this facility for wellness care."

Playing off a "small-town" theme, BWBR Architects, St. Paul, developed a plan that would welcome rather than intimidate patients coming for ambulatory care at this large facility. "This is a big hospital in a small community," explains Jim Davy, AIA, principal. "The spirit of the project from the beginning was to keep that small-town character alive within these spaces."

BWBR launched into the project in 2000. The program included a 50,800-square-foot expansion to accommodate outpatient services, as





Playing off a "small-town" theme, the center's transparent entrance (opposite) opens into a spacious "town square" where patients and families orient themselves (above).

well as the remodeling of an existing 20,700 square feet. Included in the expansion were new surgery and recovery rooms and a new heart center.

To create openness and transparency in the facility's new front elevation, the design team used glass, stone and red brick. "Creating a whole new entrance to an existing facility was challenging," admits Davy. "Choosing the brick and stone and glass, as opposed to the precast concrete of the existing structure, helped present a friendlier public image."

The entrance opens into a two-story, glasswalled "town square," where patients and families orient themselves and begin their journey





Abundant natural light, airy interiors, curving corridors (opposite) and naturethemed details (above) combine to create the clinic's friendly feel and welcoming aesthetic.

to one of the four outpatient areas: a women's clinic, imaging center, a heart center and an ambulatory-care center made up of multiple subspecialty clinics. Flooded with natural light and featuring a curved, wood ceiling, the space features porcelain-tile flooring chosen to mimic exterior pavers and a gas fireplace set into a stone wall that's a continuation of the same wall found on the building's exterior. Comfortable furnishings grouped around the fireplace offer visitors a relaxing place to gather.

A corridor with floor-to-ceiling windows, through which sun drenches waiting areas, leads to a "central park" on each level, along which the clinics are located. An open woodand-metal stairway (with metal pickets sculpturally shaped to represent bowing prairie grass) connects the two levels. Along the "central-park" corridors each clinic entrance is signified by a different color scheme to assist people with wayfinding.

"We established a separate identity for each of the outpatient clinics along the central-park corridors through the use of materials, colors and artwork," explains Susan Clark, interior designer, BWBR. Each clinic also has a reception area that functions like a "front porch," Davy says, "to help convey a warm, welcoming feeling."

Within each clinic space, the team designed treatment areas with the same user-friendly touches. Nurses' stations are only desk high so they're approachable; treatment cubicles are finished with decorative-glass treatments on the doors, soft wall colors and artwork. The









Healing gardens are visible through the floor-to-ceiling windows (above), which also flood the interiors with healthy, healing daylight.

women's center, located at the end of central park for added privacy, is decorated with wood trim, wall sconces and oval wall mirrors.

Along the central park's curving corridors, such amenities as children's play areas, a resource library, a variety of seating options and computer carrels with plug-ins for laptops enhance the family-friendly environment, allowing people to relax, stroll or work while they wait. Plants and abundant natural light add to the area's serene sensibility.

While sustainable-design strategies weren't inherent to the project's program, the design team incorporated several green strategies that

add to the facility's healing environment. Outside, the healing gardens include native trees and shrubs. Indoor spaces feature abundant natural light and views to the outside, to provide both staff and patients with the benefits of connection to the outdoors. Low-VOC-emitting materials and a medical-quality HVAC system keep off-gassing and odors to a minimum.

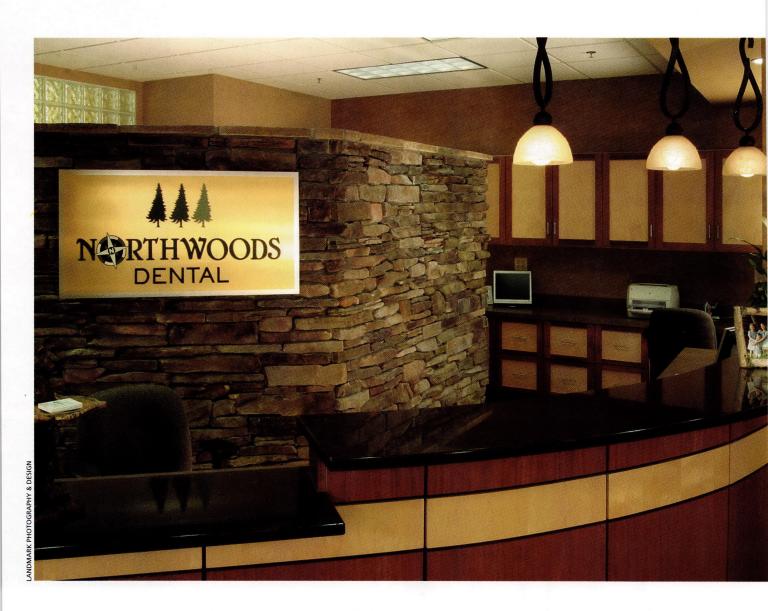
According to Davy, the building's overall design features several key elements that help convey the accessible image the clinic sought to achieve. Curves in the roof form, in the stair railing along the upper landing and along the central-park corridor, for instance, "are comforting to people and they reduce the expanse of straight corridors," Davy says. "A 200-foot corridor that curves is much less intimidating than one that goes straight ahead of you endlessly."

The new facility is notably open to the outdoors. Visitors can easily orient themselves to the outside through the floor-to-ceiling windows in the town-square area and healing gardens are visible through the large windows that line the central-park corridors. While noting that "it takes more square footage to go this route," Davy says he believes establishing a connection to the outdoors is becoming increasingly important in healthcare design. "There has been a lot of research over the past 20 years about the benefits of natural light," he says, citing one example, "and it seems conclusive that natural light is key to reducing people's stress and anxiety, and thus to establishing a healing environment."

The community has embraced the facility's transformation and the expansion of its new outpatient-services facility. "Prior to our remodel and expansion, we had a 56-percent patient-satisfaction rating," Davis says. "We're pleased to say that in our last survey, we got a 95-percent rating in customer satisfaction. The atmosphere and environment of this facility have changed so dramatically—everything worked out just as we had hoped."

Upper level
1. Town square
2. Admitting
3. Central park
4. Ambulatory-care clinics
5. Resource center
6. Existing

Northern Illinois Medical Center Ambulatory
Care Center
Centegra Health Systems
McHenry, Illinois
BWBR Architects
St. Paul, Minnesota



Dental CARE

A NEW DENTAL OFFICE MERGES HIGH-TECH PRACTICE AND PATIENT AMENITIES WITH A LODGE-STYLE AESTHETIC By Barbara Knox



Design team (left to right): Tom Wasmoen, AIA; Todd Donskey; Paul Meyer, AIA.

Lodgelike styling and high-tech amenities merge in this dental office (above).

Wander into Northwoods Dental in Plymouth and you may, for a moment, think you've stepped into a Caribou Coffee house. With its wood-paneled waiting room filled with oversized leather furniture and featuring a stone fireplace, Northwoods Dental feels more like a kick-off-your-shoes, lodge-style lounge than the anteroom to a high-tech dentistry practice.

"We used the lodge theme as a basic concept," explains Paul Meyer, AIA, Paul Meyer Architects, Plymouth, "and refined it for this dental office so the look wasn't too rough-hewn." While the client, Scott Scharf, D.D.S., was drawn to the "upnorth" lodge look so many Minnesotans relate to, he also wanted to celebrate the leading-edge technology he employs in his dental practice. He turned to Meyer, also the architect-of-record for the recently completed office building in which Northwoods Dental is located, to merge the two disparate themes.

In the waiting room of the 3,600-square-foot office, walls are covered in maple- and cherrywood paneling to harmonize with the culturedstone fireplace and a wood ceiling system. Logstyle furnishings with leather upholstery offer a comfortable spot for waiting clients to relax by the fire or watch TV on the plasma screen. A curved reception counter backed by a culturedstone wall completes the reception area.

Beyond the waiting room, however, Dr. Scharf's offices feature state-of-the-art patient rooms and an equipment-sterilization area open for all to view. While the welcoming feel of the waiting area is continued in such details as two-panel maple-wood doors with stiles and rails in contrasting finishes, technology plays a dominant role. Each patient chair includes a 17-inch flat screen that allows the client to relax and enjoy their favorite DVD or cable-TV show while the doctor works. "It was our intention, throughout the project, to balance high technology and earthy materials in order that people might feel more comfortable during their appointments," Meyer says.

A sophisticated HVAC system cleans the air and keeps medical smells at bay. Streamlined fixtures include blue lenses to soften overhead light. The design team also specified an acoustical ceiling in a pleasing graphic pattern. The choice of flooring, a wood-grain-style vinyl, adds to the overall feel of the office. Large window openings in each patient room let in abundant natural light.

"In the 1980s, dental offices were all about open spaces with low partitions between patient stations," says Scharf, "which made patients feel more vulnerable during an experience that should be private." Meyer echoes the thought when he says that his goal was to create for Scharf "a space that doesn't intimidate, an environment that helps transform the stereotypically negative dental visit into a more positive experience."

With the aroma of fresh cookies—baked daily in the office's staff-room oven-lingering in the waiting room and a roaring fire in the grate, Northwoods Dental has hit upon a winning strategy for making patients feel pampered, if not at home.

Northwoods Dental Plymouth, Minnesota **Paul Meyer Architects** Plymouth, Minnesota



Plan

- 1. Reception
- 2. Waiting
- 3. **Business**
- 4. Break
- 5. Office
- Operation
- 7. Hygiene
- Sterilization 9. Financial
- 10. Consult









The office's waiting area, with its stone fireplace and wood paneling, is more lodge than clinic (top), with state-of-the-art dentistry practiced in rooms with views (left and far left).



Clean LIVING

A HEALTHY HOUSE IS A HAVEN FOR A COUPLE WITH CHEMICAL SENSITIVITIES AND ACCESSIBILITY NEEDS By Camille LeFevre



Design team (left to right): Rosemary McMonigal, AlA; Ashley Mitlyng; Jennifer Schlag; Curtis Martinson; Melissa Steinberg.

Hans and Barb Gasterland tried to renovate their older home in south Minneapolis to accommodate a wheelchair and be free of off-gassing and other noxious odors. Barb uses a wheelchair on occasion while coping with a degenerative-joint disease and may use it more in the future. She also suffers from chemical sensitivities. The couple soon recognized the need to start from scratch to get the house they needed.

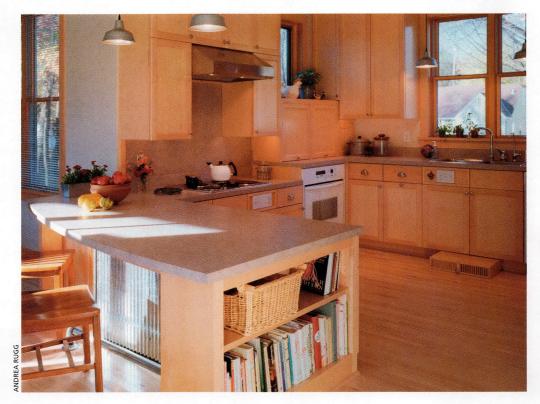
The Gasterlands purchased land in the Bryn Mawr neighborhood of Minneapolis, hired Rosemary McMonigal, AIA, McMonigal Architects, LLC, Minneapolis, and started anew. "They really wanted a place that would cheer and shelter them, and give strength to body and soul," McMonigal says.

The gable-roofed 880-square-foot house, completed in 2002, adopts a farmhouse vernacular (with galvanized-metal details) that fits into the

neighborhood and harkens back to Barb's Wisconsin roots. The house is separated from the garage, which is detached to isolate exhaust and oil fumes from the house. A covered sloped walkway to the house's wheelchair-accessible main entrance connects the two structures. A screened porch on the garage overlooks the backyard.

The three-level house includes a second floor with two bedrooms and a bath; a first floor with kitchen, dining and living areas, a half bath and Barb's office; and a basement with laundry, Hans's office, a bath and a family/guest space—all complete with grab bars, accessible by elevator and spacious enough for a wheelchair. Spaces and built-ins were also designed to allow future modifications as the couple's needs change.

Moreover, Barb spent two years testing products used in the house—from paint and adhesives to wood. Hans would put two samples in





mason jars, seal one jar and leave the other sample to dry in the open air. Barb would later smell them and undergo muscle testing with her doctor to determine her sensitivity.

Later Barb and Hans tried to closely monitor the products' installation and application. Once, however, a well-meaning painter thought a primer too smelly and substituted a different one. Barb, however, had selected the smelly primer because of its neutrality once it dried. Consequently, the primer had to be stripped off and the original one applied.

The construction schedule incorporated a period of time after work was completed in which the house sat empty and was ventilated, so any off-gassing was finished before the Gasterlands moved in. "Building this house was quite a research project," Barb says.

In addition, the Gasterlands needed custom bathroom and kitchen counters, because Hans is about 17 inches taller than Barb. Rooms have windows on two sides for cross ventilation and daylighting. The furnace and appliances are electric. Because Barb is a master gardener, low-

maintenance native-plant gardens were installed in the front yard and wheelchair-accessible raised-bed gardens were created in the backvard. The landscaping also includes catchment gardens that collect and store roof water.

About the house, McMonigal says, "We wanted a clean simple design for balancing the Gasterlands' health concerns while carefully shaping the site." Hans adds, "We firmly believe our house has pizzazz." For her part, Barb admits to encountering many challenges in creating a healthy house, but the effort is reaping rewards.

"My health has gotten better since moving into the house," Barb says. "My immune system isn't getting hit with so many things. And the design of the house, with all of the natural light and views to the woods, is uplifting. It's a beautiful place."

Gasterland House Minneapolis, Minnesota McMonigal Architects, LLC Minneapolis, Minnesota



House and garage are connected by a covered walkway (opposite). Inside, abundant natural light and simple materials create the clean aesthetic (above left) that accommodates the Gasterlands, as do countertops of varying heights (above and top).



DON F. WONG

Research DRIVEN

A STATE-OF-THE-ART FACILITY SUPPORTS UNIVERSITY OF MINNESOTA RESEARCHERS AT THE LEADING EDGE OF THE BIOLOGICAL-SCIENCES REVOLUTION By Barbara Knox



Design team (left to right front): Bruce Corzine, AIA; Doug Pierce, AIA; Trevor Dickie; (back) Chuck Knight, AIA; Marianne Repp O'Brien, AIA; (not pictured) Rich Smith.

For researchers at the University of Minnesota, the new Molecular and Cellular Biology Building was a long time in coming. In fact, faculty first began discussing a new facility as far back as 1981. "As it became more and more apparent that the human genome was being discovered and understood, we knew we needed a building where researchers could explore what human DNA is all about," says Dr. Frank B. Cerra, senior vice president, health sciences, University of Minnesota.

"We also wanted to bring researchers together in one place," he adds, referring to a universitywide movement to consolidate the medical school and the college of biological sciences. With doctors and scientists working on related biological research scattered around the two Twin Cities campuses of the university, coherent collaboration had been difficult at best.

After years of grappling with the problem, the university requested—and the 1998 legislature approved—a bonding bill that would help pay



for a new building on the Minneapolis campus. Part of the "Capital Plan for the Support of Academic Programs in the 21st Century" created by Mark Yudof, then-president of the university, the new Molecular and Cellular Biology Building was deemed essential for putting the University of Minnesota at the leading edge of the revolution occurring in the biological sciences. There, researchers could explore such critical contemporary challenges as the genetics of cancer and developmental disabilities like autism.

"The university really wanted this building to catapult biological research to the next level and bring all the players together to enhance collaboration in both research and teaching," says Chuck Knight, AIA, managing principal, Perkins & Will, Minneapolis, whose firm designed the building. Part of a larger effort to build a biological-research corridor between the St. Paul and Minneapolis campuses, the building opened in 2002 to rave reviews from those who have worked long and hard on its conception.

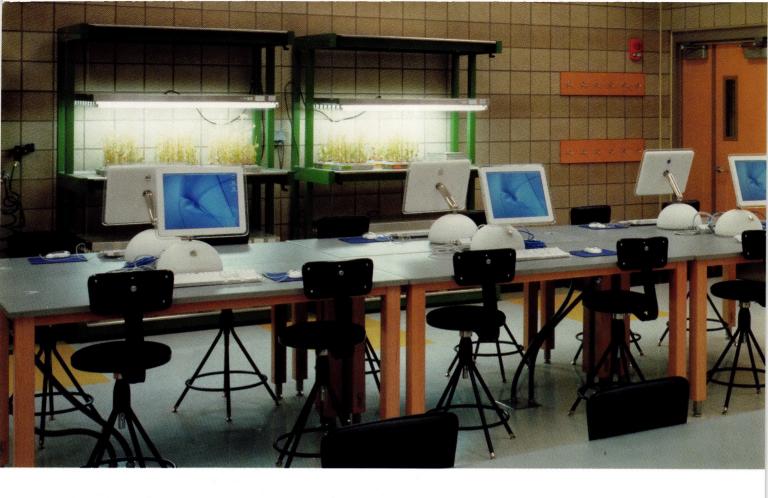
"This is a state-of-the-art facility," Cerra says. "We wanted the best space in the world to support the research that ensued from the discovery of the human genome and I think this is a model building."

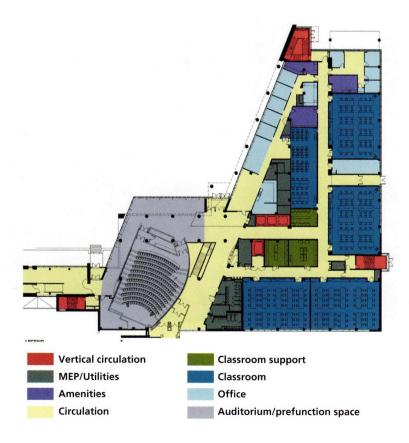
Called a modernist/traditional building by Knight, the 276,000-square-foot facility had a straightforward program. The university required lecture halls, teaching labs, research labs with office spaces, an auditorium, common areas and a clearly defined circulation system designed to allow even casual visitors to easily navigate their way through the building.

The resulting plan resembles an L-shape with a curve in it. Two sublevels and five above-grade levels contain the requisite teaching and research spaces, including advanced wet and dry



The energy-efficient brick building (opposite and top) operates at 34-percent better than code, and has a high degree of transparency to utilize daylighting and create gathering spaces near windows (above).

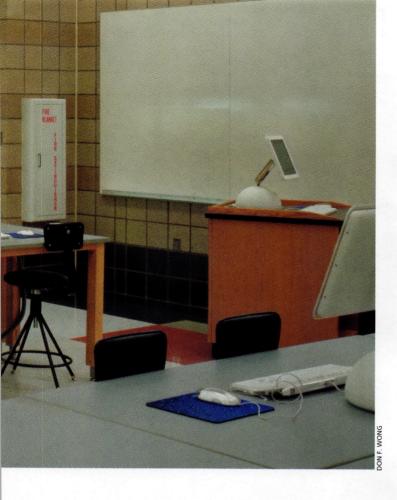




laboratories (researchers conduct chemical experiments in wet laboratories, while computer and classroom work is done in dry laboratories), and support spaces for undergraduate, graduate and professional students.

The brick building's glass curtain wall provides a high degree of transparency and allows visitors to quickly orient themselves to the outdoors and thus never feel lost. Classrooms and offices are along the perimeter of the internal core to provide students with easy access to faculty. Laboratories and other support spaces fill the core. At the link of the L, vertical meeting spaces bring everyone together, which was one of Cerra's goals for the project.

"We wanted common areas where you could bring your lunch and bump into your colleagues," he explains. "One person starts to talk to another and all of a sudden you've got a whole new series of ideas. That's not something you can manage or direct, but it's something that grows naturally out of an environment of creativity. And it's definitely working here."







Labs (opposite and above) were designed for durability and flexibility, and are located at the building's core along with support and teaching spaces (top).

Although, as Knight says, the program boiled down to "getting as many lab spaces and offices and teaching rooms into the footprint as possible," the finished building is highly functional and designed for future flexibility. Modular casework in the laboratories can be moved around fixed plumbing stacks to allow researchers to reconfigure lab space as needed. Services located near the perimeter of the labs keeps interior spaces free to accommodate the changing needs of researchers.

Terrazzo floors and brick interior walls were chosen for durability and function. Also designed with energy conservation in mind, the building operates at 34-percent better than code requirements and was optimized using federal Department of Energy energy-modeling technology. The high-end mechanical system includes safety backups and was designed to accommodate future growth.

The largest research building ever constructed on campus, the Molecular and Cellular Biology Building provides space for 70 different research groups, including more than 400 scientists (many of whom are engaged in initiatives linked to pediatric and general medicine), the university's cancer center, and private local and national biotech companies. Working within the facility, the researchers are also producing knowledge that adds value to public and private, local and national biotech companies.

Heady stuff for the uninitiated, but, Cerra says, the requirements for a successful building are the same no matter the pursuits within. "To me, good design is about getting the programmatic functionality into the building so you can do what you need to do, but at the same time enjoy being in the space. Perkins & Will accomplished all of that for us."

Molecular and Cellular Biology Building **University of Minnesota** Minneapolis, Minnesota Perkins & Will Minneapolis, Minnesota



Spiritual MATTERS

A MEDITATION CENTER IS THE NEW SYMBOLIC HEART OF THE HAZELDEN

FOUNDATION CAMPUS AND ITS RECOVERY PROGRAMS By Camille LeFevre



Design team (left to right): Malini Srivistava; Thomas Meyer, AIA; Jodi Gillespie; Paul Hannemann, AIA; Jeffrey Scherer, FAIA

The people who find themselves in treatment at the Hazelden Foundation in Center City. Minnesota, are a group diverse in age, circumstances, background and religious affiliation. But they share one characteristic: All suffer from addiction to alcohol or drugs and are in recovery. So when Hazelden decided to add a meditation center to its range of healing therapies and its 500-acre campus, the challenge was to create an ecumenical place in which anyone could find solace and grace.

"That's where the architect played a key role," says Dave Hill, corporate director, facilities and support services, Hazelden Foundation. "The design, the materials and the lighting all work together in creating a representation of spirituality that anyone can relate to and draw strength from, whatever their idea of a higher power."

In creating the 2,800-square-foot center, completed in 2001, Jeffrey Scherer, FAIA, principal, Meyer, Scherer & Rockcastle, Ltd., Minneapolis, and his design team began with a quote from psychologist Marion Woodman: "The wound is where the light comes in." Explains Scherer, "Woodman's quote relates to a key element of recovery: honesty. Knowing the place where you're the most damaged is the site where you'll find the most healing. By dealing with the pain and opening to the light, you can be transformed."

Thus the genesis of the building's form is a perfect square separated in the middle (with one side rising more than three feet higher than the



other) by an open space symbolic of the wound of addiction—a narrow exterior landscape of jagged bluestone monoliths and glass walls through which natural light fills the interior. The center is sited on the crest of a hill that slopes down to a pond to protect the people inside from being seen while they're meditating.

Inside the masonry building, which is framed with recycled fir, the width of the entry corridor narrows from double-wide to single-wide, reinforcing the solitary act of meditation. On the east side of the building are four single meditation rooms layered between masonry and screen

walls. On the other side is a vesica or vessel room that accommodates up to 10 people meditating together. Radiant heating in the bamboo floors, abundant daylight and plaster walls create a clean, natural aesthetic.

"Just as our clients at Hazelden understand that recovery is a process, so were they attuned to the unfolding nature of discovery that's integral to the design process," Scherer says. Conversely, the meditation center reflects an open, explorative design process that delved into allusive ideas of how spirituality and meditation inform the individual's healing process and expressed those ideas in architectural form.

For his part, Hill commends the durability of the building and its craftsmanship, but adds that, "It's wonderful to stand in the middle of the building on a cloudy day and watch how its character and ambience change as the light moves around inside. Here is a safe, quiet place for healing away from everything else on campus."

Hazelden Meditation Center Center City, Minnesota Meyer, Scherer & Rockcastle, Ltd. Minneapolis, Minnesota



The structure is created around a "wound" of addiction (opposite and top) landscaped with bluestone, while the center's interior features meditation rooms with a clean aesthetic and bountiful natural light (left).



While cultures around the world have long recognized the palliative power of nature, landscape architects and their clients are now designing gardens to play a significant role in the healing process By Heather Beal

> Like a string of pearls, a series of gardens follows a trail that begins at the edge of a patio, slowly drops in elevation and meanders through wetlands and wooded areas, the sights and sounds of nature gradually replacing the views and noises of the suburbs. Plants that stimulate and delight the senses with color, texture, form and sound animate the trail. The leaves of lamb's ear are soft and furry to the touch. The aroma of wild geranium floats through the air.

> The orblike blossoms of giant allium sway on slender stems. The leaves of the quaking aspen gently rustle in the wind. In the future, visitors might watch butterflies in a prairie meadow or weave their way through a fieldstone maze. A woodland shelter will provide space for meditation, while a gazebo will accommodate group gatherings.

> So where is this idyllic spot? In a nature preserve or private garden? On a corporate campus or in a public arboretum? None of the above. It's actually a series of "healing gardens" on the Woodwinds Health

Campus in Woodbury, Minnesota, designed by Damon Farber Associates, Minneapolis.

Created to extend the compassionate-care philosophy of HealthEast Care System and Children's Hospitals and Clinics into the site of this new medical facility, the gardens increase sensory awareness, strengthen people's connection with nature, and thus provide a calming distraction from the stress of being ill or caring for someone who is sick. Once all of the gardens are complete, a leisurely stroll along the "healing trail" will provide soothing, restorative experiences via an ever-changing collage of outdoor landscapes.

While integrating gardens into a holistic healing regimen might seem like a new idea, cultures around the world have intuitively recognized the palliative power of nature since the beginning of recorded history. The restorative gardens of ancient cultures in Persia, Egypt and Asia resurfaced as courtyard gardens in medieval European healing places, such as monasteries and hospices.

After a brief decline in the 14th and 15th centuries, when plagues, crop failures and migration to the cities overwhelmed caregiving facilities, gardens returned to hospital and asylum settings from the 17th through 19th centuries as Romantic beliefs about the value of communing with nature converged with observations that cross ventilation and natural light could help halt the spread of disease. Patients who weren't ambulatory were wheeled out onto porches and broad balconies to enjoy the fresh air, sunlight and views of the countryside.

During the 20th century, however, rapid technological innovation and economic pressures combined





Woodwinds Health Campus in Woodbury, designed by Damon Farber Associates, allows family members, patients and medical staff to experience nature in a variety of settings (above and left).





Forest Transformation (top and above) is a contemplative area designed by Rebecca Krinke for the Minnesota Landscape Arboretum in Chanhassen.

to create a rift between scientific and natural approaches to medicine. In the United States, healthcare-reform measures prompted public leaders and medical administrators to measure success in terms of shorter hospital stays and streamlined service delivery.

Medical professionals tried to keep pace with the growing volume of knowledge by focusing on the treatment of particular body parts or specific afflictions. As Nancy Gerlach-Spriggs, Sam Bass Warner and Richard Kaufman note in their book Restorative Gardens: The Healing Landscape, "patients became diseased entities, not self-healing humans," and less care was given to providing usable outdoor spaces in or around medical facilities.

Since the mid-1980s, however, a more integrated approach to healthcare that blends science and nature has helped resuscitate the belief that gardens can play a significant role in the healing process. Studies by Dr. Roger Ulrich (Science, 1984) and others have demonstrated that simply viewing nature can have positive physiological and psychological effects, such as lowering blood pressure, increasing brain activity that elevates a per-



son's mood, slowing pulse and breathing rates, reducing muscle tension and expediting recovery from surgery.

In recent years, landscape architects have used such research to inform their designs for gardens located in healthcare or restorative settings, thereby creating healing gardens that complement and enhance specific healing processes. Research for the design of these gardens begins with such questions as: How does the organization that owns and maintains the garden define healing? Who will use the garden? Why? What type of therapeutic or restorative activities will occur there? What are the desired physical and/or psychological outcomes?

"At Woodwinds, healing doesn't just refer to patients," explains Tom Whitlock, project landscape architect, Damon Farber Associates. "Sometimes family members and medical staff just need to get away. The design we developed centers on the idea that healing occurs in different ways for patients and everyone who assists with the healing process."

Continued on page 52



The Tabitha Memory Care Garden in Hastings (top and above) was created with the challenges and considerations of Alzheimer's patients in mind.

natural healing

Continued from page 51

To understand the needs of a wide range of users, designers met with caregivers, staff, donors and administrators. They also reviewed examples of healinggarden design, drawing particularly upon information in the book The Meaning of Gardens, by Randy Hester and Mark Francis. "We decided the Woodwinds Healing Gardens should provide multisensory experiences and opportunities for participation, exploration, discovery, meditation and sharing," Whitlock says. "We tested every garden against these principles while trying to create flexible spaces where nature could be experienced in a variety of ways."

But the Woodwinds landscape is only one example of healing gardens. Diverse interpretations of the concept, while always based on restoration of the human body and psyche through interaction with nature, are materializing throughout Minnesota. Forest Transformation, for example, designed by Rebecca Krinke, assistant professor of landscape architecture, College of Architecture and Landscape Architecture, University of Minnesota, Minneapolis, serves a broad range of people, yet it focuses on a specific activity: contemplation.

Located at the Minnesota Landscape Arboretum in Chanhassen, Forest Transformation is visited by students, faculty, participants in the University of Minnesota's horticulture-therapy program and members of the public.

According to Krinke, the arboretum's director, Peter Olin, wanted to create a place where anyone could feel restored by connecting with nature. The terrorist attacks of 9/11 occurred while she was designing this garden. The increased need for contemplative places was immediately apparent.

"In their book Healing Gardens, Therapeutic Benefits and Design Recommendations, Clare Cooper Marcus and Marni Barnes define healing as 'a beneficial process that promotes overall well-being' and they identify three deliberate outcomes of this process: alleviation of physical symptoms;

stress reduction; and improvement in the overall sense of wellness," Krinke explains, "My work engages parts two and three of this definition."

Krinke drew upon diverse sources in creating the work. She used a theory developed by environmental psychologists Rachel and Stephen Kaplan, which states that a restorative landscape has four attributes: a quality of "being away," a quality of evoking "fascination," a balance between coherence and mystery, and a feeling of safety. Krinke was also inspired by Walter DiMaria's artwork The Lightning Field, which explores moment-by-moment changes in light, and by Japanese screens that distill nature into a captured pictorial moment. "Researchers have

Studies demonstrate that simply viewing nature can have positive physiological and psychological effects, such as lowering blood pressure, slowing pulse and breathing rates, and reducing muscle tension.

shown that discursive thought is stilled when you capture and hold moment-bymoment attention," Krinke says. "Blood pressure goes down and people are calmed by the experience."

Forest Transformation is composed of an intimate, enclosed bench which, when someone is seated, focuses his or her attention on a sealed-copper wall (which has a second bench attached to its back). The garden is sited in a grove of maple and basswood trees, "because people tend to endow groves of trees with a numinous, sacred quality," she explains.

"Copper seemed an appropriate cladding for the wall because it is a natural material associated with healing," she continues. "As shadows from the trees travel across the wall, the effect is the same as the art on Japanese screens; nature is distilled. When your gaze shifts back to taking in the whole forest, you see it differently."

"Having a place to enjoy nature without a specific, goal-oriented activity is key to the contemplative experience," she adds. "This work is about direct, unmediated experience. What could be simpler? It is not radically unfamiliar and yet it transports you out of everyday life."

In contrast to the Woodwinds healing gardens and Forest Transformation, which serve a broad range of people, the Tabitha Memory Care Garden responds to the needs of a specific patient population. Located at the Tabitha Memory Care Center, an assisted-living facility in Hastings, Minnesota, this garden serves older adults who have Alzheimer's disease or other conditions that have resulted in memory loss.

In 1998, Jim Hagstrom, Marjorie Pitz, Todd Wickman, Rebekah McNeil, Erik Jorgenson and Ellen Burbank collaborated as part of the American Society of Landscape Architects' Alzheimer's Garden Project. In addition to reviewing research about healing-garden design and learning about the symptoms and progression of the disease from the Alzheimer's Association, the design-team members drew upon their personal observations, because each had a relative or friend with Alzheimer's.

"Although short-term memory loss is a common symptom," says landscape architect Jim Hagstrom, "many Alzheimer's patients can recall distant memories. The path from the residential building to the garden builds comfort by re-creating a familiar sequence that moves from home to porch to backyard. We also chose plants with colors, scents and textures that could be found in most residential gardens to evoke pleasant memories of the past."

Ensuring the residents' safety presented some unique challenges. "Since people with Alzheimer's can become confused or lost even in familiar settings, the strolling path through the garden forms a loop to return residents to the entry point," Hagstrom says. "We also enclosed the garden with a fence and minimized connections with the surrounding landscape, because if the residents saw a larger outdoor space, they naturally would want to go there. In general, designers avoid making exits too obvious, because in Alzheimer's gardens residents might walk through them, become disoriented and wander off."

Jeannie Larson, coordinator, therapeutic-horticulture services, Minnesota Landscape Arboretum, believes valuable post-occupancy research could be conducted at the Tabitha Memory Care Garden to strengthen connections between design decisions, new therapeutic activities, and desired physical or mental improvements.

"Techniques, such as dementia-care mapping used in clinical settings, could be adapted to measure the effects of a healing garden designed for people with Alzheimer's disease," Larson says. "Without establishing connections between design intention, therapeutic activities and results, a healing garden is just another beautiful, natural place."

Paul Mellblom, AIA, agrees with Larson about the importance of research. Mellblom is board president for Clare Housing, a Minneapolis nonprofit organization planning to build a 30-unit apartment complex and related contemplative garden for people living with AIDS. "For the garden to be successful," he says, "it must uniquely reflect its location, consider our time in the history of the disease, and take into account the effects of HIV/AIDS on the residents and their support community. Research will allow us to design a place that emotionally and spiritually enhances the lives of the people who use the garden. This cannot be achieved without a profound understanding of their specific needs."

As an informal advisor for the Clare garden, Krinke is helping to establish

landscape-design guidelines. "I recently finished reviewing examples of gardens designed for people living with AIDS," Krinke says. "Next I'll develop a list of questions that the building-committee members and the architect can use to set design objectives. Ideally, these objectives will define desired healing outcomes that can be measured or observed later. There are very few case studies to inform design decisions. We need more data about actual effects to continue learning and improving the design of healing gardens."

The University of Minnesota's Center for Spirituality and Healing may soon be able to help professionals gather this data, as it's raising funds to construct a healing garden for health-sciences education, patient care and research. University students, faculty and staff, healthcare providers, patients and community members will use this garden to learn more about the relationship between healing and medicinal herbs, as well as therapeutic horticulture.

According to Elizabeth Lake, director of development, Center for Spirituality and Healing, there are a number of ways research could be linked to activities in the garden. "The biggest challenge will be to design a garden flexible enough to be adapted as new research projects arise," Lake says. "For example, our director, Mary Jo Kreitzer, recently won a major grant to examine the effects of meditation on transplant patients. We could include meditation activities occurring in a contemplative area of the garden in this study."

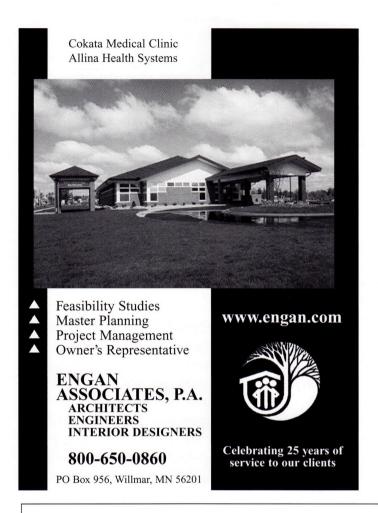
Even if studies continue to show that merely being in nature can have positive physiological and psychological effects, and as medical professionals, researchers and landscape architects collaborate to blend the best of scientific knowledge with age-old wisdom about the restorative power of nature, there is one point on which everyone seems to agree: Design intent must translate into measurable results if a garden is truly to be considered "healing." ♦

HEALTH, HEALING & WELLNESS FACILITIES

or more than 100 years, **◀** architects who are members of AIA Minnesota have designed outstanding architecture. From Cass Gilbert's design of our state Capitol to the new buildings featured in each issue of Architecture Minnesota. Minnesota architects have a rich and celebrated tradition of designing beautiful, functional and playful buildings for use by all of us.

The "Portfolio of Health, Healing & Wellness Facilities" on the following four advertising pages will introduce you to AIA Minnesota firms who have expertise in this area and who have chosen to advertise in this issue. Each is owned and operated by members of AIA Minnesota, our state's Society of the American Institute of Architects.

If you need assistance in finding an architect and utilizing a fair and thorough selection process, please contact AIA Minnesota at 612/338-6763. We have brochures and suggested selection methods that can save you time and money, as well as enable you to find just the right architect for your project. The May/June issue of Architecture Minnesota includes an annual directory of all of our AIA Minnesota firms, or you may find it on our web site www.aia-mn.org.





ARCHITECTS

Serving local and regional health care providers

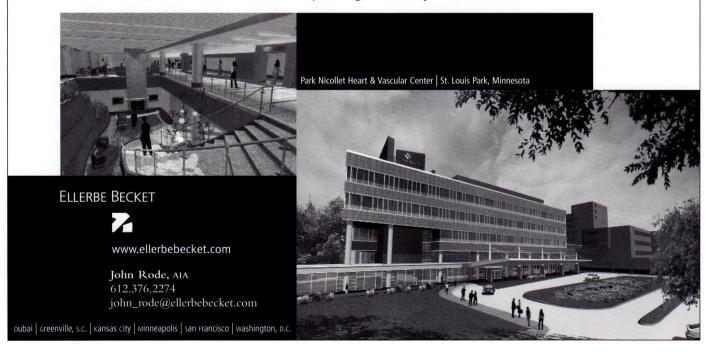
1935 West County Road B2 - Suite 410 Roseville, Minnesota 55113-2772

Call Rolf Oliver, AIA

Telephone: 651-631-8090 Fax: 651-631-8251

Healthcare Design + Construction Expertise

Improving efficiency & customer satisfaction





Dedicated to excellence for the healthcare community since 1955.

BUILDING ON THE PAST, PLANNING AND ENVISIONING THE FUTURE.

Integrated Planning Design



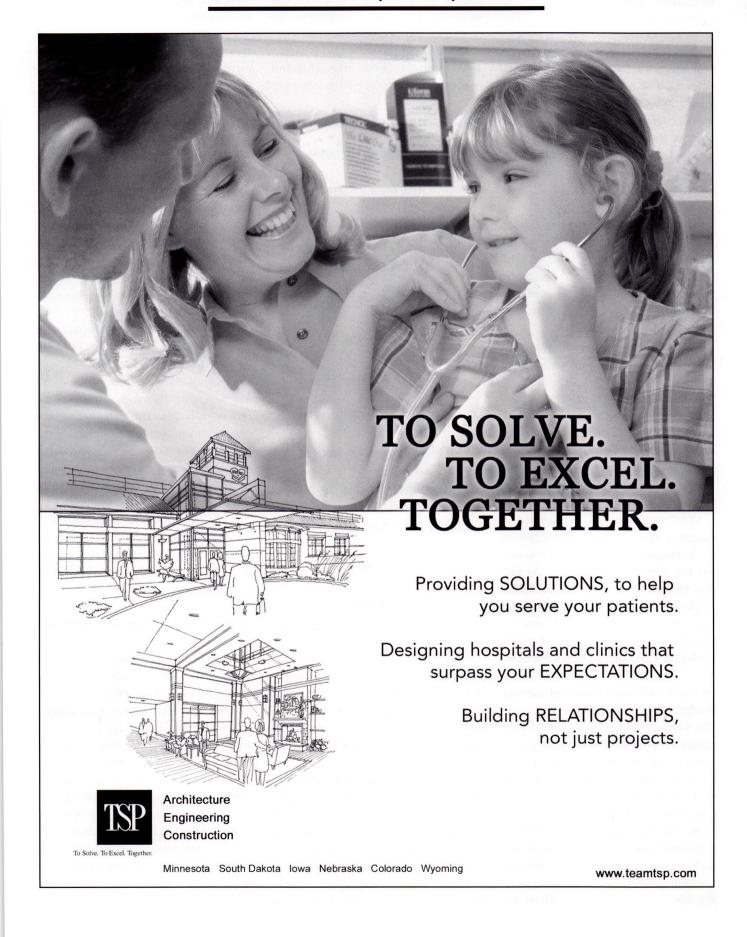
505 East Grant Street, Minneapolis, MN 55404-1490 T 612.332.4422 F 612.344.1282 www.hortyelving.com





612/339-4200

Creating healing environments for over 35 years.



president's message

Continued from page 17

built and natural environments, which in turn affects the function, cost, safety and enjoyment in how we live, work, play, learn and worship. It's a 24/7, quality-oflife issue for virtually everyone. I hope to improve the relationship between architects and their public, in order to continually upgrade the diverse aspects of our living environment.

Do you have other priorities this year?

Yes. With the help of AIA Minnesota's Board of Directors, I've outlined three interrelated participation-action programs that go beyond our normal operations, to keep AIA Minnesota strong through 2004 and beyond.

Our organization has a solid structure. tremendous tools with which to communicate with the public, outstanding continuing-education programs and a multitude of committees that focus on the different aspects of delivering architecture, all supported by a political-action group. So I'm tempted to refer to that old Alfred E. Newman quote from Mad Magazine: "What, me worry?"

Still, I want all of us to be proactive in designing AIA Minnesota's future, just as we do buildings, and to continue to protect the public's health, safety and welfare, which is what we are licensed to do.

All of which leads to the three special issues we'll be attending to this year: inclusiveness and diversity; the changing marketplace; and education and licensure.

Let's start with inclusiveness and diversity. In what sense are you referring?

This works on several levels. First, the architectural profession is still perceived as a white, upper-class, male profession whose members are 45 to 50 years old. What is the reality? How should that change in the next year?

We need to make sure our membership represents the cultural and ethnic backgrounds of Minnesota architects. The demographics of the state are changing, and women and various ethnic and cultural backgrounds are underrepresented in the profession of architecture. We don't have the diversity of our public.

One-third of the profession is women and growing. However, the ethnic-minority participation is not showing pro-

"Our work directly influences the quality of the built and natural environments, which in turn affects the function, cost, safety and enjoyment in how we live, work, play, learn and worship. It's a 24/7, quality-of-life issue for virtually everyone."

portional growth. We need to formulate ways to reach out to these groups by increasing our support of minority students, promoting cultural diversity in the profession, and through education and

In still another regard, architects work in widely diverse professional settings beyond the traditional firm or practice. We have members serving as educators at the University of Minnesota, working in construction firms, as corporate architects within businesses and as public employees with the government. How do we

serve that diversity in terms of continuing education, recognition and at the legislature? The organization and its services must be accessible and relevant to all categories of practicing architects in order for each of them to be their best.

So let's discuss the upcoming year in terms of education and licensure.

Yes, as we need to educate firms and students on the process and value of licensure. Licensure is critical because it's the true differentiator between someone practicing in an allied field and the architect who is certified, by law, to protect the health, safety and welfare of the public. One of our goals is to identify the reasons why someone may not pursue or complete testing for licensure.

Another goal is, in conjunction with the University of Minnesota's College of Architecture and Landscape Architecture, to prepare a simple outline of the learning cycle, charting out the architect's career from college through registration and on into continuing education. At the same time, the public needs to know that an architect must complete a minimum of a 10-year education and experience process before having the ability to even take the test to become registered. A licensed, registered architect has, at minimum, a 10-year portfolio of education and experience behind them, similar to the professions of law or medicine.

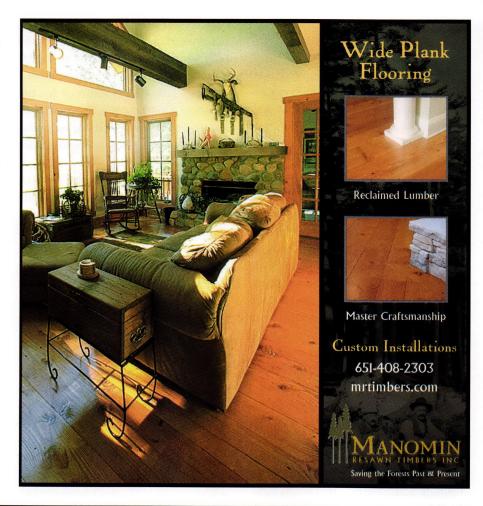
How does all of this relate to the changing marketplace?

The architect's role always seems to be at some risk of being nibbled away at by several forces, including our increasingly complex specializations and reemerging project-delivery modes. We need to pay attention to changes in these areas. In addition, we need to reinforce our position at the state level on the qualifications-based selection process (Minnesota has an independent board—the State Designer Selection Board—that selects architects for state-funded projects) to ensure it's maintained. We don't want that process bypassed.

So by the end of the year, what do you hope to have accomplished as president?

Hopefully we'll have reached direction on the three issues just talked about. While they're not towering, live-or-die issues, they will affect our ability to practice and thus need our proactive attention. They are another stage in the process of growth and public awareness.

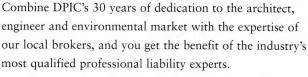
It's easy for the public to take the built environment for granted, because it appears passive and inconspicuous when it's working well. What may not be understood or appreciated is that the architectural design of spaces directly affects human productivity, mental wellbeing and physical health, in addition to a company's bottom line. So communication to the public about what architects do is critical. AM



66 I chose my insurance agent for the same reason my clients choose me: experience.



Experience is the DPIC difference.



From ongoing education in how to manage risk to new ideas in practice management and smarter dispute resolution that protects your interest, we'll help you realize a better return on your firm's insurance investment.

Contact us today for more information.

H. Robert Anderson & Associates Theresa Anderson, Benjamin Claassen Jeanne Danmeier 952.893.1933



endangered

Continued from page 19

an Environmental Assessment Worksheet that analyzes a variety of possible negative impacts—including environmental and historical—on the site and surrounding area. Barr Engineering, Minneapolis, conducted the study.

The EAW recommended several projects intended to mitigate proposed alterations to the site. The projects include: a bike trail that connects an existing trail at the west end with the future housing development; and a commemorative open space with a water feature, a limestone wall and a historical marker in a trail turnaround where treaties and agreements "were said to be negotiated." Last November, after a mandated EAWreview period, the Mendota Heights City Council voted to order an Environmental Impact Statement, a more complex and thorough study of the adverse aspects of the issue.

Coalition members have been concerned that although Mendota Heights officials acknowledge Oheyawahi/Pilot Knob's potential historic importance, they have focused on analysis of physical evidence as the determining factor for the site's historic status. A survey by the Office of the State Archaeologist indicated no evidence of known burials. White and Woolworth's nomination form, however, mentions various persons who knew of native remains unearthed and transferred to burial vaults within Acacia Cemetery.

White says the city is, in effect, saying, "Show us the bones," as a way of defining the site's historic merit. Native American history, however, is often largely based on such intangible aspects as collective memory and beliefs derived from spiritual experiences. Besides, White adds, although the burial aspect has gained the most attention, it is the healing ceremonies that render Oheyawahi/Pilot Knob's principal value. Can potentially eligible historic properties associated with Native American culture, particularly aspects related to that culture's spiritual beliefs, be "fair and balanced" in legal proceedings? "Law has not evolved, federal or state, that would fully address the complexity of Native American spiritual beliefs and culture," explains Tom Casey, attorney for the Mendota Mdewakanton Dakota Community, which is one of the organizations seeking to keep Oheyawahi/Pilot Knob in its present character.

Casey notes that nonnative research looks for physical evidence that usually doesn't exist in places that are spirit-based. "Places can be sacred," he says, "without containing the physical evidence on which nonnatives depend. While monotheistic religions place importance on man-made monuments and places, aspects of naturebased places are held sacred by Native American communities."

The National Park Service, the federal authority in regulatory functions of historic preservation, has established procedures for consideration of such properties as Oheyawahi/Pilot Knob in a category titled Traditional Cultural Landscapes. According to the guidelines, "traditional refers to beliefs, customs and practices of a living community passed down through generations, usually oral or through practice. A traditional cultural landscape can look like a typical landscape, even though a significant culture existed there. As a result, such places may not be identified (solely) by conducting archaeological, historical or architectural surveys." The guidelines recommend interviews with knowledgeable persons to form the basis for historical consideration.

Doubters may consider such oral accounting to be hearsay and not concrete enough to establish historical record. The NPS states that in assessing traditional cultural properties, the purely intangible cannot be recognized without related tangible data. Charlene Roise, president, Hess, Roise and Company, Minneapolis, supports the emerging recognition of Native American historic preservation and agrees with the tangibility requirement. "There needs to be a 'there' there," she says.

Arguably, Seth Eastman's documentary illustrations, early reports of native remains and other data noted in White and Woolworth's nomination provide tangible evidence. In addition, according to White, the Mendota Mdewakanton Dakota still hold pipe ceremonies on Oheyawahi/Pilot Knob.

Clearly, there's already enough "there" there at the site without a bike trail and commemorative space. As well intentioned as they may be, these "improvements" are merely the design responses of a dominant culture. AM

citizen architect

Continued from page 21

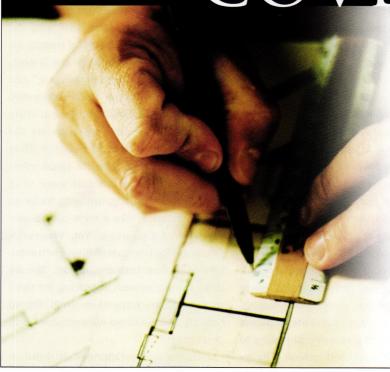
operation, not its image. The park's salubrious effects on central London, however, inspired the creation of parks in other, less well-heeled neighborhoods. A bonafide park movement began. Landscape architect and father of American park design, Frederick Law Olmsted, toured the early English public parks in 1851 (including Regent's, Victoria and Birkenhead parks) just prior to commencing work on New York's Central Park with his partner, the architect Calvert Vaux.

While the earlier tradition of landscape gardening focused primarily on aggrandizing the aristocracy and impressing the public, Olmsted spent his career arguing for the landscape's wholesome effect on the individual user. In particular, he believed that exposure to natural settings while riding, strolling or simply relaxing could repair the physical and emotional injuries caused by urban life.

Writing in the 1868 Annual Report to the Brooklyn, N.Y. Park Commissioners, Olmsted posits that, "Civilized men, while they are gaining ground against certain acute forms of disease, are growing more and more subject to other and more insidious enemies to their health and happiness, and against these the remedy and preventive cannot be found in medicine or in athletic recreations but only in sunlight and such forms of gentle exercise as are

Continued on page 62

COMMITMENT. CONCERN. COVERAGE



At DENNIS J. LINDER & ASSOCIATES, we provide professional liability insurance and risk management to the design community.

With committed service and industry expertise, we work with you and your firm to create client-specific coverage plans. We help manage your risk of loss with concern for both your short and long-term needs.

Our comprehensive insurance programs, educational resources and policyholder services have you covered. Call us to see what Dennis J. Linder & Associates can design for you.

DENNIS J. LINDER

Providing Insurance & Risk Management to the Design Community

phone: 612.371.2080 • fax: 612.371.2099

Schinnerer & Company, Inc.

INSURANCE IN TOUCH WITH BUSINESS

Lic.# 744230

Contracts

you can

custom-build.

AIA Contract Documents start you off strong, and keep you moving in the right direction with the latest in construction industry practices, technology, legal precedents, and indemnity insurance.

A Contract Document for every job.

Whatever the scope of your next project, there's an AIA Contract Document that you can customize to suit your particular specs.

With AIA Contract Documents, you'll always have access to the most current documents, and you can choose from either the classic print format or the allnew electronic version.

Contact AIA Minnesota 612-338-6763 now for Documents that are strong and flexible.

AIA Contract Documents. You can build on them. 612-338-6763



AIA Contract Documents are a product of The American Institute of Architects.

citizen architect

Continued from page 60

calculated to equalize the circulation and relieve the brain."

Clearly, Olmsted saw the urban park primarily as a place of passive recreation—the appropriate mode for recharging the spirit of the urban dweller. Accordingly, his designs for Central Park and Prospect Park in New York, and Franklin Park in Boston, consist mainly of strolling and carriage paths, riding trails and opportunities for quiet contemplation of bucolic scenes. Intensive athletic activities were discouraged or banned outright, since it was thought these would disrupt the calm and serenity imparted by the natural setting.

While Cleveland was a contemporary of and sometimes a collaborator with Olmsted, his work in Minneapolis marked a shift in the approach to park planning. Cleveland's vision was not that of a singular greenspace surrounded by urbanity, but a collection of preexisting natural features linked by parkways and ornamental boulevards that threaded through the city.

Harkening back to the philosophy of Enlightenment planners, Cleveland believed that such an integration of parkways into the urban fabric would improve public health by bringing, "winds...into the heart of the city, purified by their passage over a long stretch of living water, and through the foliage of miles of forest."

Like Olmsted, Cleveland saw the park primarily as a place of spiritual refreshment through passive recreation and individual contemplation of natural beauty. It was not until the beginning of the 20th century that we see more active forms of recreation taking place within park limits. In 1906, the Playground Association of America was formed, culminating a decade-long movement on the part of the nation's park superintendents to open up municipally owned parkland for recreational use by children and young adults.

Not coincidentally, that same year the newly installed superintendent of Minneapolis parks, Theodore Wirth, ordered the removal of all "Keep Off the Grass" signs, ushering in a new era of athletic recreation for the Minneapolis Park System. Throughout his tenure, Wirth expanded park pro-

grams and facilities to accommodate and encourage such physical activities as sledding, skating, baseball, horseshoes and even ski jumping.

One can argue that the shift in focus from passive to active park uses was again a response to the changing social conditions attending modern urban life. The park as locus for physical fitness satisfied a new need for a society removed from long days of physical labor. Even today the park serves as an extension of the gymnasium, another modern institution created to compensate for the symptoms of a sedentary and increasingly auto-focused urban lifestyle.

Cities today are not the discrete urbs of a hundred years ago; they are vast intermunicipal systems that blur into the rural landscape. As the metropolis expands, regional park systems are called upon to mitigate the increasing ecological damage of urban sprawl. They contain nature preserves for endangered species, bioswales and ponds to filter contaminated storm-water run-off, and are home to reestablished natural ecosystems like marshlands and prairies to reduce flooding and soil erosion. The regional park is but the public park writ large and, in like fashion, is a tool to heal the damage we are inflicting on the planet due to low-density urbanization.

It's sadly ironic that at the time of Central Park's sesquicentennial, a time to revel in the art and vitality of the American park system, we have somehow lost the grandness of vision that brought such parks into being. Even at the time of this writing the Metropolitan Council has retreated from a clear and strong plan to preserve natural and agricultural lands at the urban periphery, hanging their hat instead on a loose framework of goals without clearly stated objectives or measurable outcomes.

In the 1980s, in response to the deteriorated condition of Central Park, activists rallied around the slogan, "You Gotta Have a Park!" Well, indeed, we gotta have a park, but we also need dynamic visionaries like Olmsted, Cleveland and Wirth to make them happen. If history is any indication, the future health of our cities and suburban communities is depending on it. **AM**

practice

Continued from page 23

Washington State University. "Just the act of opening a window, even on a hot and sultry day, can make people feel cooler."

According to Wise, who developed a system called Biometrics, which he defines as "creating an ecological context for people where their neuro-sensory systems operate within designed parameters," and who worked with the CSBR to develop the Minnesota Sustainable Building Guide, many factors can stimulate the neuro-sensory system to function more efficiently. For instance, to think effectively, people need a visual space of at least 20 feet, and something to focus on in the distance, like a view of the outdoors or of a painting. Yet, Wise says, "Standard high-tech buildings are the antithesis of how humans operate. We are free-roaming animals that long for open spaces, but are trapped in small, barren cubicles and buildings with windows that don't open."

Creating and sustaining healthy indoor environments is one goal of the sustainable-architecture movement, which began in the early 1990s. "Sustainable architecture is a broad term that refers to buildings that are energy efficient with low impact on air, land, water, ecosystems and material resources," says John Carmody, director, CSBR. "Sustainable architecture also includes a healthy indoor environment that enhances the well-being and productivity of the occupants."

Carmody argues that worker satisfaction and health are directly linked to energy-efficient and cost-effective indoor environments. For instance, a 2003 study by the Lighting Research Center at Rensselaer Polytechnic Institute, Troy, New York, states: "Physiologically, daylight is an effective stimulant to the human visual system and the human circadian system. Psychologically, daylight and a view are much desired."

The study points out that while increasing the number of windows in a building may add to construction costs, the incorporation of daylight reduces the cost of electricity, as well as costs related to worker absenteeism and the demand for health

services due to eyestrain and stress. Likewise, Carmody says, an ergonomically correct computer chair, which places the body in correct alignment to the keyboard and supports the back, minimizes such potentially costly and debilitating injuries as carpal-tunnel syndrome.

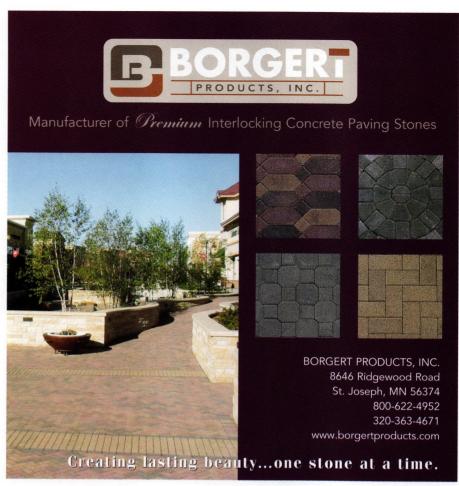
Perhaps the most obvious indicator of a healthy environment is air quality. Such problems as mold and ventilation are only part of the challenge. The ban on smoking in most buildings, which began in the early 1990s, has had a major impact on air quality, but also some unexpected repercussions. "Now that the lingering odor of stale tobacco smoke has been removed from most buildings, we can smell all the odors that the smoke was masking," says David Grimsrud, former director, CSBR, and an expert on indoor-air quality. Consequently, people are more aware of the presence of molds and pollutants from materials used in walls, carpets, paints and adhesives.

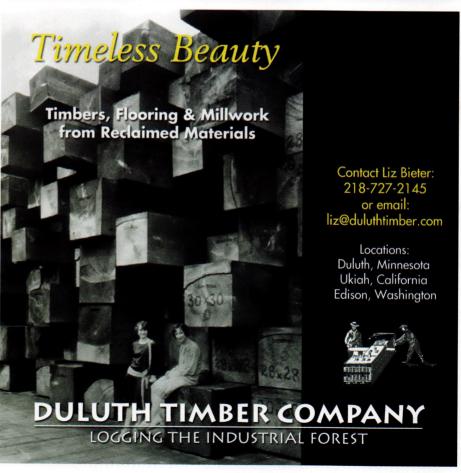
Grimsrud stresses the need to include simple and cost-efficient methods for ventilation in homes, such as bathroom fans that run continuously and hoods over cook-top stoves vented to the outside. But consumers, architects and builders also need to seek out products and materials that don't emit harmful gases, such as low- or no-VOC paints, organic finishes and floor coverings with recycled content and minimal or no off-gassing.

Buildings are made up of complex, interrelated systems, Moffitt emphasizes. "We need to be aware that if we change or alter one thing, another problem may pop up," he says. For instance, people often make alterations to their homes that can change the air pressure and allow gas from combustion appliances to get sucked into the basement.

After noticing an alarming increase in the rates of asthma and other allergies without apparent cause, the ALA built a Health House 10 years ago that incorporated everything known about indoor environments. (The program has since completed 120 houses from Alaska to Florida. The ALA has also developed designs for healthy commercial buildings, but hasn't

Continued on page 64





isellarchitecture.com Scott Acker Realtor 612.928.8627





>Listing 01

>Listing 02

For sale 01: This home designed by renowned architect Charles Stinson is perched above a protected wetland. The property is flooded with light and features a master spa, open spaces, sophisticated details and custom finishes. Call Scott Acker at 612.928.8627.

For sale 02: This Architectural home is a case study of light, privacy and open living. The property is located in Indian Hills of Edina on a quiet culde-sac and offers over 3,000 fsf. Scott Acker and team at Coldwell Banker Burnet specialize in Architectural real estate. Call Scott direct at: 612. 928.8627 or visit www.isellarchitecture.com for photos.

> Rubin Cordaro Design



graphic design and visual communications 612 343 0011 www.rubincordaro.com

practice

Continued from page 63

found the funding to build a demonstration model.)

Building on the premise that healthy indoor environments can be achieved at low costs, the ALA developed Health House Guidelines (www.healthhouse.org) that suggest such measures as putting in gravel, PVC pipes and plastic sheeting before a house foundation is laid to prevent random gases from accumulating, and such moisture-control methods as building up landscapes and repairing drain pipes.

To ensure a healthy and productive indoor environment, buildings must also respond in a variety of ways to the human biological mechanism. "As human beings evolved, they were 'wired' to prefer certain environments that reflect the natural world," Carmody says. Environments incorporating natural daylight, fresh air, colors and patterns reflecting nature (the shape of a tree or a cloud, for instance) are more conducive to health and creativity than the abstract geometry and antiseptic atmosphere of many workplaces and public buildings.

Carmody cites a study of patients in recovery rooms in hospitals, which found that patients placed in rooms with windows looking out onto views of nature, or with paintings of natural scenes, recovered more quickly. "The most important thing is to do no harm," Carmody says. "Then we can move toward more conceptual ideas of replicating certain ideal environments found in nature."

"One can synthesize the appearance and 'touch and feel' of natural environments without having to literally re-create these environments," Wise adds. "Through color, texture and pattern, we can re-create mathematical structures in nature so that the interior of a building acts like a natural environment."

As an example, Wise cites the "canopy lighting" in shopping malls, which generates a carefully calibrated dappled pattern through heterogeneous light sources placed at different levels. This type of system, he continues, "re-creates the sort of lighting one would experience sitting un-

WHAT STRIPED AND FEROCIOUS SPECIES IS EXTREMELY SIMPLE TO HUNT DOWN?



IT'S OUR BUSINESS TO KNOW BETTER.

At Lon Musolf Distributing, we distribute more than just top-shelf, thoroughly pampered wood flooring products-we also distribute knowledge. The kind of knowledge gained over 50 years of wall-to-wall industry experience. From unique and rare species readily in stock, to the most current technical advancements to the flooring trends just around the corner. Ask Lon anything that will help you do your job even better.



BECAUSE IT'S YOUR REPUTATION.

www.lonmusolf.com

Con's answer: Tigerwood a k.a. Goncalo Alves. Heartwood reddish-brown with dark brown to black streaks. Origin: Brazil. Janka Hardness: 2160. No hunting required. Call Lon

der the sheltering edge of a tree with a tier of broad horizontal limbs, situated on a daylit plain."

Carmody stresses that improving indoor environments both increases worker productivity and lowers a company's bottom line. For example, the CSBR's Minnesota Sustainable Building Guidelines are currently required for all buildings funded by the State of Minnesota. "The State now recognizes an economic incentive for decisions such as putting in more windows," he says. "They can see that incorporating healthy building techniques translates into workers with fewer sick days and employers with less turnover."

Perhaps most important, healthy indoor environments allow people to function efficiently and creatively. When architecture responds to biological needs, a building becomes an incubator where the human organism can develop and flourish. AM





Share Your Vision with a Minnesota Architect!

You've carefully thought about your project. You have a vision. Now, how do you get there?

Start by contacting an AIA Minnesota architect.

An architect is uniquely qualified to give shape and form to your vision. They make things happen. Your project, large or small, new or old, can benefit from an architect. Their services add market value to your property, improves the efficiency and productivity of your project, and often reduces your building's impact on the environment.

See how working with an architect can enhance your vision. Visit aia-mn.org for a listing of AIA Minnesota member firms and information on working with an architect and pick up a copy of *Architecture Minnesota* magazine at your favorite newsstand today.



AIA Minnesota, A Society of the American Institute of Architects 275 Market Street, Suite 54, Minneapolis, Minnesota 55405 612-338-6763 www.aia-mn.org 1

ith this issue, Architecture Minnesota presents our 12th directory of those Minnesota firms that provide consultative engineering services. Principals of these firms are members of the American Council of Engineering Companies of Minnesota, AIA Minnesota or independent consulting engineering firms.

Engineers provide those critical design skills that enable our entire built environment to be structurally safe, comfortably warm and well lit and environmentally friendly. They also design our highways and bridges, water treatment facilities and power generation plants.

In Minnesota, you will find there is a wealth of engineering talent available for your next project. Study this directory and call either the American Council of Engineering Companies of Minnesota (ACEC) at 952/593-5533 or the American Institute of Architects Minnesota (AIA Minnesota) at 612/338-6763 for additional information and assistance.

ALBERTSON ENGINEERING INC.

2198 Goodrich Avenue St. Paul, MN 55105 Tel: 651/699-5083 Fax: 651/699-5084 E-mail: salbertson@isd.net Established 1998

J. Shane Albertson

Firm Personnel by Discipline Mechanical Engineers Technical Total

Mechanical consulting engineering for HVAC, plumbing, fire protection, process piping, refrigeration piping, temperature controls, energy management and HVAC system commissioning for commercial, industrial, medical, educational and municipal projects.

New Brighton Public Safety Building, New Brighton, MN: Hawkins Chemical Red Rock Road Plant, St. Paul, MN; Minneapolis East Yard Water Works and Vehicle Maintenance Building Air Systems Addition, Minneapolis, MN; Honeywell Technology Center Energy Labs, Minneapolis, MN; Affiliated Medical Center MRI and CT, Willmar, MN; St. Joseph Catholic School, Waconia, MN

LEGEND

PE	Professional Engineer
PG	Professional
	Geologist
AIA	American Institute of
	Architects
AICP	American Institute of
	Certified Planners
CCM	Certified
	Construction
	Manager
CID	Certified Interior
	Designer
CIH	Certified Industrial
	Hygienist
ASLA	American Society of
	Landscape Architects
PLS	Professional Land
	Surveyor (registered)
RA	Registered Architect
RCDD	Registered
	Communications
	Distribution
	Designer
RLS	Registered Land
	Surveyor
LS	Land Surveyor
	(registered)

Structural Engineer

(Certified)

ALLMAN & ASSOCIATES, INC.

323 South Broadway Avenue Rochester, MN 55904 Tel: 507/282-9082 Fax: 507/282-4199 E-mail:

cvanhouten@allmanassoc.com www.allmanassoc.com Established 1996

Jeffrey G. Allman Corey A. Van Houten

Firm Personnel by Discipline Mechanical Engineers **Electrical Engineers Technical** Administrative Total

5

3

Allman & Associates is a multidiscipline consulting engineering firm specializing in mechanical and electrical engineering services and real estate development. We maintain multi-state registration. We work with Architects and the trades for design build projects. We have expertise in HVAC, plumbing, fire protection, power, lighting and low voltage cabling.

Continued on next column

Residences of Old City Hall, Rochester, MN: Professional Skaters Association, Rochester, MN; Glencoe Aquatic Center, Glencoe, MN; Quarry Ridge Apartments, Rochester, MN; CRC Call Center, Austin, MN: Merchant's Bank, Rochester, MN

PE = AMERICAN ENGINEERING TESTING, INC.

550 Cleveland Avenue North Saint Paul, MN 55114-1804 Tel: 651/659-9001 Fax: 651/659-1379 E-mail: aet@amengtest.com www.amengtest.com Year Established 1971 Other Offices: Duluth, Rochester, Mankato and Marshall, MN; Sioux Falls, Pierre and Rapid City, SD; and Wausau, WI

Terry E. Swor PG Richard Stehly PE Michael Schmidt PE Daniel Larson PE Jeff Voven PE Robert Kaiser Firm Personnel by Discipline Civil Engineers 50 Structural Engineers Mechanical Engineers Metalurgical Engineer Other Professional 26 **Technical** 107 Administrative 28 Total 215

AET is a multi-disciplinary consulting engineering firm offering geo-technical, environmental, construction materials, forensic, and NDT/metallurgy services. Specialization: geo-technical exploration and engineering review, building/structure condition assessment, building restoration, environmental assessment, remedial investigation and air emission permits, metal failure analysis. AET emphasizes developing work approaches specifically addressing client project needs. Serving Minnesota, Wisconsin,

Upper Landing Redevelopment, Saint Paul, MN; Minneapolis Convention Center Expansion, Minneapolis, MN; Xcel Energy Center, Saint Paul, MN; Minneapolis Heart Hospital Expansion, Minneapolis, MN; General Mills World Headquarters, Golden Valley, MN; Bureau of Criminal Apprehension, Saint Paul, MN

North and South Dakota

ARMSTRONG, TORSETH, SKOLD & RYDEEN, INC.

8501 Golden Valley Road Ste. 300 Minneapolis, MN 55427 Tel: 763/545-3731 Fax: 763/525-3289 E-mail: information@atsr.com www.atsr.com Established 1944

Paul Erickson

Jim Lange

Gaylen Melby PE Terry Stofferahn PE Firm Personnel by Discipline Civil Engineers 1 Mechanical Engineers 25 **Electrical Engineers** 10 Architects 53 Other Professionals 25 Administrative 6 Total 120

AIA

PE

ATS&R is a multi-disciplined architectural/engineering firm providing mechanical and electrical engineering for educational facilities, churches and public buildings. Other services include civil engineering for site design and storm water management as well as technical design for video, voice, data and security systems. Specialized designs for energy conservation measures including passive solar, heat recovery systems, geo-thermal heat pumps, variable air volume, dessicantbased cooling and energy management systems.

Mayo High School Additions and Alterations, Rochester, MN; Meadowview Elementary, Farmington, MN; Osseo Senior High School Additions and Alterations, Osseo, MN; Sunrise River Elementary, North Branch, MN; Tartan Senior High School Alterations, Oakdale, MN; Woodcrest Baptist Church, Eagan, MN

SE

DIRECTORY OF CONSULTING ENGINEERING FIRMS

2

BKBM ENGINEERS, INC.

5930 Brooklyn Boulevard Minneapolis, MN 55429-2518 Tel: 763/843-0420 Fax: 763/843-0421 E-mail: rlamere@bkbm.com www.bkbm.com

Established 1967 Other Office: Marshall, MN

Thomas J. Downs	PE
Ronald J. LaMere	PE
Andrew M. Rauch	PE
John B. Thiesse	PE
_	
Firm Personnel by Discipline	
Civil Engineers	4
Structural Engineers	14
Restoration Engineer	1
Technical	6
Administrative	2
Total	27

BKBM Engineers is a nationallyrecognized structural, civil and restoration engineering firm with expertise in a wide range of project types such as office buildings, manufacturing/warehouse, medical/health care, churches/worship, education/academic, correctional facilities, recreational facilities, government centers, residential, historical renovations, parking structures, skyways, industrial/ethanol facilities and expert investigations.

St. Anthony Falls Heritage Center, Minneapolis, MN; Lindsay Lofts, Minneapolis, MN; Drake Building Renovation, St. Paul, MN; Ramsey County Juvenile and Adult Centers, St. Paul, MN; Hastings High School, Hastings, MN; Crescent Ridge Executive Office Complex, Minnetonka, MN

BKV GROUP

222 North Second Street Minneapolis, MN 55401 Tel: 612/339-3752 Fax: 612/339-6212 E-mail: jboarman@bkvgroup.com www.bkvgroup.com Established 1978

J. Owen Boarman	AIA
David R. Kroos	AIA
Gary T. Vogel	AIA
Harold "Luke" Manthey	PE
Stephen Hearn	PE
James Moravek	PE

Continued on next column

Firm Personnel by Discipline	
Structural Engineers	3
Mechanical Engineers	3
Electrical Engineers	3
Architects	28
Other Professionals	2
Technical	2
Administrative	6
Total	47

BKV Group offers structural, mechanical and electrical engineering utilizing technology concerned with environmental issues to bring clients into a productive, efficient future they can control and enjoy. With 25 years of governmental, corporate, commercial, academic and religious facilities experience, BKV Group has engineered new construction, additions and renovations.

Maple Grove Government Center, Maple Grove, MN; Freeborn County Justice Center, Albert Lea, MN; Winona County Courthouse, Winona, MN; Anoka-Hennepin Technical College, Anoka, MN; Shakopee Library, Shakopee, MN; Edina City Hall and Police Station, Edina, MN

BONESTROO, ROSENE, ANDERLIK & ASSOCIATES

2335 West Highway 36 St. Paul, MN 55113 Tel: 651/636-4600 Fax: 651/636-1311 E-mail: info@bonestroo.com www.bonestroo.com Established 1956 Other Offices: Milwaukee, WI; Rochester, Willmar, and St. Cloud, MN; Libertyville, IL Robert Schunict PE

PE

Daniel Edgerton	PE
Sheldon Johnson	
David Loskota	PE
Michael Rautmann	PE
Firm Personnel by Discipline	9
Civil Engineers	91.5
Structural Engineers	7
Electrical Engineers	2
Sanitary, Transportation &	
Traffic Engineers	26
Architects	11
Other Professional	147
Technical	8
Administrative	49
Total	341.5

Continued on next column

Thomas Syfko

Bonestroo's civil, transportation, environmental, structural and electrical engineers provide site design, drainage, and grading services: traffic studies for access roads, parking and circulation; water supply and wastewater disposal design; and water and natural resource protection and restoration. Our recreation experts specialize in ice refrigeration system design and aquatics engineering.

University of Minnesota Landscape Arboretum Site Development, Chanhassen, MN; Rainwater Gardens, Maplewood, MN; Aquatic Facility, Rock Island, IL; Ice Arena, Iowa State University, Ames, IA; James J. Hill Building Restoration, St. Paul, MN; Lighthouse Condominiums Restoration, Port Washington, WI

BRAUN INTERTEC CORPORATION

11001 Hampshire Avenue S. Minneapolis, MN 55438 Tel: 952/995-2000 Fax: 952/995-2020 www.braunintertec.com Established 1957 Other Offices: St. Paul, St. Cloud, Apple Valley, Rochester and Hibbing, MN; Fargo and Bismarck, ND; La Crosse, WI

George D. Kluempke	PE
Charles R. Brenner	PE
Jon A. Carlson	PG
Michael M. Heuer	PE
Ray A. Huber	PE
Robert J. Janssen	PE
Firm Personnel by Discipline	
Civil Engineers	35
Other Engineers (Soils,	
Testings, Environmental,	
Geologists, Eng. Techs)	154
Other Professional	168
Administrative	55
Total	376
_	

Serving as an engineering, consulting and testing firm providing solutions for property development, redevelopment, facilities management and infrastructurerelated issues. Provides services during each stage of development from the pre-project geo-technical and environmental evaluations through materials evaluation during construction and property management issues. Provides services nationally and internationally.

Continued on next column

Minneapolis Central Library, Minneapolis, MN; MN Department of Revenue, St. Paul, MN; Medtronic, Fridley, MN; University of Minnesota Campus, Minneapolis, MN; Walker Art Center, Minneapolis, MN; Science Museum of Minnesota, St. Paul, MN

CAIN OUSE ASSOCIATES, INC.

1310 East Highway 96 White Bear Lake, MN 55110 Tel: 651/426-9549 Fax: 651/426-5048 E-mail: jcain@cainouse.com www.cainouse.com Established 1983

Jay J. Cain	PF
Wallace M. Ouse	PE
Scott D. Thomas	PF
Firm Personnel by Discipline	
Manhanian L. Danis	2

Firm Personnel by Discipline	
Mechanical Engineers	3
Electrical Engineers	2
Technical Technical	4
Administrative	2
Total	11
-	

Mechanical and Electrical Engineering for the construction industry. Project types include residential complexes, educational facilities, transportation, religious facilities, and manufacturing for owners, contractors, developers and architects.

River Falls High School, River Falls, WI; North Hennepin Community College General Education Building, MN; St. Michaels Church and School, Stillwater, MN; Croixdale Residence and Apartments, Bayport, MN: Carlton County Highway Department, Cloquet, MN; Boutwells Landing, Oak Park Heights, MN

CLARK ENGINEERING CORP.

621 Lilac Drive North Minneapolis, MN 55422 Tel: 763/545-9196 Fax: 763/541-0056 E-mail:

lmcmurtry@clark-eng.com www.clark-eng.com Established: 1938 Other Offices: Aberdeen and Sioux Falls, SD

Larry McMurtry Michael Fowler Hadi Sajadi Cory Casperson Tim La Bissoniere Abi Assadi

Firm Personnel by Discipline Civil Engineers Structural Engineers Surveyors Other Professional Technical Administrative Total

Clark Engineering Corporation provides structural engineering, civil engineering and land surveying services for educational, commercial, industrial, and public sector facilities. Specialty design services for blast resistant structures, special foundations, elevated towers and overhead material handling systems. Civil engineering and surveying services for site development, planning, water supply and distribution, waste water treatment and disposal and storm water management.

U.S.A. Furniture Outlet, Shakopee, MN; Royal Credit Union, Eau Claire, WI; Central Bucks South High School, Warrington, PA; Sauk Rapids High School Site Development, Sauk Rapids, MN; Brookdale Regional Government Center Expansion and Remodeling, Brooklyn Center, MN; Sumner Community Library Expansion and Remodeling, Minneapolis, MN

DARG BOLGREAN MENK, INC.

7575 Golden Valley Road Ste. 210 Golden Valley, MN 55427 Tel: 763/544-8456 Fax: 763/544-8914 E-mail: info@dbm-inc.com www.dbm-inc.com Established 1966

Gene Bolgrean Harry D. Menk PE PE PE Firm Personnel by Discipline PF Structural Engineers Technical PE Administrative

PE

Total

services for commercial/retail, of-12 fice/warehouse, academic, industrial, governmental, medical/health, 2 housing, religious and parking 26 facilities. With expertise in steel, 5 concrete, masonry and wood, DBM has engineered new construction, additions and renovations/restorations on over 5,000

projects in 21 states.

Consulting structural engineering

St. Anthony Fire Station, St. Anthony, MN; Midland Country Club. Midland, TX; Fridley Public Works Office Addition, Fridley, MN; Falcon Heights Retail/Apartments, Falcon Heights, MN; Buhler Addition, Buhler, MN: Becker Furniture World Addition, Becker, MN

DATA CORE ENGINEERING, INC.

2021 East Hennepin Avenue Ste. 200 Minneapolis, MN 55413 Tel: 612/617-1200 Fax: 612/617-1299 E-mail: info@dcedesign.com www.datacoreeng.com Established 1991 James W. Giefer PE D. Lane Hersey PF.

Jeff Westlund RCDD Bill McGuire Firm Personnel by Discipline **Electrical Engineers** Technical Administrative Total

Continued on next column

Data Core is a technology consulting firm. We provide technology planning and design services to architects and engineers for the integration of computer, audio/visual, telephone and other communication systems for both new construction and renovation projects. In addition, we help businesses and institutions integrate computer/telephone systems and software programs to best support current and future needs.

Technology Upgrade, Saint Paul Public Schools; Citywide Offices Network, City of South St. Paul, MN; Minnesota Counties Insurance Trust, St. Paul, MN; Technology Upgrade, Owatonna Public Schools;, MN; Network and Intranet Support, Cretin Derham Hall, St. Paul, MN; Technology Upgrade, Hastings Public Schools, MN; Technology Design, Douglas County Metro Center, Superior, WI

DLR GROUP

9521 West 78th Street Minneapolis, MN 55344-3853 Tel: 952/941-8950 Fax: 952/941-7965 E-mail:

minneapolis@dlrgroup.com www.dlrgroup.com Established 1966 Other Offices: Chicago, IL; Colorado Springs, CO; Des Moines, IA; Farmington, NM; Honolulu, HI; Kansas City, MO; Milwaukee, WI; Omaha, NE; Orlando and Tampa, FL; Overland Park, KS; Philadelphia, PA; Phoenix, AZ; Portland, OR; Sacramento, CA; Seattle, WA

Griff Davenport AIA Matt Johnson AIA Kelly Artz Marlene Evenson AIA Jon Crump AIA George Fantauzza AIA, CID

Firm Personnel by Discipline Civil Engineers Structural Engineers Mechanical Engineers **Electrical Engineers** Architects

Administrative

Total

1

Continued on next column

Other Professional

DLR Group has been providing exceptional engineering and design services since its inception in 1966. As a full-service architectural and engineering (mechanical, electrical, structural, civil and technology/communications) firm, we are a national leader in the design of corporate, industrial, educational, sports, justice and health care facilities, and associated building systems.

East Central School District, New K-12 School, Sandstone, MN; Richfield School District, Multiple Projects, Richfield, MN; Scott County Jail, New Jail and Law Enforcement Center, Shakopee, MN; B.H. Whipple Federal Building, Building Renovations, Minneapolis, MN; Anoka Ramsey Community College, Campus Expansion, Cambridge, MN; Global Industries, Office/Showroom/Warehouse, Brooklyn Center, MN

DOLEJS ASSOCIATES INC.

1624 North Riverfront Drive Mankato, MN 56001 Tel: 507/625-7869 Fax: 507/388-9225 E-mail: dolejs@mnic.net Established 1977 Other Offices: Burnsville, MN

Joseph Dolejs	PE
Michael Dolejs	PE
Christopher Dolejs	PE
- In the second	
Firm Personnel by Discipline	
Mechanical Engineers	3
Electrical Engineer	1
Technical	10
Administrative	1
Total	14

Dolejs Associates provides Mechanical and Electrical Design Services for the building industry. An experienced and stable staff provides expertise in the HVAC, Plumbing, Fire Protection, Temperature Control, Lighting Power, Communication and Life Safety Systems. Recent projects include schools, restaurants, athletic

3 facilities, motels, engineered 14 housing, churches, ADA and

1

2

6 energy conservation retrofits.

Itasca State Park Visitors Center, Bemidji, MN; K-12 School, Medford, MN; Hosanna Lutheran Church, Lakeville, MN; Community Center/Ice Arena, New Ulm, MN; Eagle Villa Condominiums, Dubuque, IA; Bethany Lutheran College Math/Science Building, Mankato, MN

DUNHAM ASSOCIATES, INC. 8200 Normandale Blvd., Ste. 500 Minneapolis, MN 55437

Tel: 952/820-1400 Fax: 952/820-2760

E-mail:

info@dunhamassociates.com www.dunhamassociates.com Established 1960

Kathleen Kolbeck PE Dale Holland PE Jav Rohkohl Mark Sigel PF. Darrell Martin EIT Brian Szwed PE

Firm Personnel by Discipline Structural Engineers Mechanical Engineers 33 **Electrical Engineers** Communications Distribution Designer (RCDD) Other Professionals

3

10

75

Technical Administrative **Total Staff**

Dunham Associates provides mechanical, electrical and structural consulting engineering along with lighting design, fire protection, telecommunications distribution design and Indoor Air Quality. Our IAQ expertise includes Thermal Displacement Ventilation and Computational Fluid Dynamics modeling. We provide our clients with specialized expertise in all business markets - Commercial, Institutional, Retail and Transportation.

Ramsey County Public Works Facility, Arden Hills, MN; Methodist Hospital Heart and Vascular Center, St. Louis Park, MN; William Mitchell College of Law, St. Paul, MN; Minneapolis/St. Paul International Airport Terminals Expansions, St. Paul, MN; Grand Casino Mille Lacs and Hinckley -Onamia and Hinckley, MN; Regis Hairstyling Salons and Master-Cuts, Nationwide

ELLERBE BECKET

800 LaSalle Avenue Minneapolis, MN 55402 Tel: 612/376-2000 Fax: 612/376-2271 E-mail: info@ellerbebecket.com www.ellerbebecket.com Established 1909 Other Offices: Greenville, SC; Kansas City, MO; San Francisco, CA; Washington, DC; Dubai, UAE

Continued on next column

Rick Lincicome AIA Randy Wood PF. Al Wenzel PF. Charles Franklin Steve Wernersbach Firm Personnel by Discipline Civil Engineers Structural Engineers 17 Mechanical Engineers 32 **Electrical Engineers** 21 Architects 109 Other Professional 71 Technical 25 Administrative 75 Total 361

Ellerbe Becket has designed efficient, reliable engineering systems for over 90 years, including heating and cooling systems, reliable energy networks, building automation and life safety systems, code compliance investigations, special electrical and lighting systems, HVAC improvements, structural investigations, vibration control, material/waste handling systems and manufacturing improvements to existing facilities.

Nicollet Mall Development, Minneapolis, MN; Mayo Clinic Gonda Building, Rochester, MN; Target Technology Center, Minneapolis, MN; Seattle Seahawks Stadium, Seattle, WA; University of Minnesota Pedestrian Bridges, Minneapolis, MN; Kingdom Centre, Riyadh, Saudi Arabia.

ENGINEERING DESIGN INITIATIVE

420 N. 5th Street, Ste. 1090 Minneapolis, MN 55401 Tel: 612/343-5965 Fax: 612/343-5982 E-mail: lnemer@edilimited.com Established 2002

Jay Hruby Larry Nemer PF. Larry Svitak Firm Personnel by Discpline

Mechanical Engineers **Electrical Engieners** Total

EDI provides innovative M/E engineering solutions for a variety of building types. EDI is committed to delivering designs that are energy-efficient, maintainable and sustainable. We are passionate in our creative design, attention to detail and commitment to teamwork - from the establishment of initial performance goals through validation by commissioning.

Continued on next column

Camp Ripley, Northern Armories, MN; Grinnell College, Commissioning Services, Grinnel, IA; SPPS Washington Middle School, Boiler Replacement, St. Paul, MN; SPPS Wilson Middle School Gymnasium, St. Paul, MN; Sawyer Community Center, Cloquet, MN; Nobles County Human Services Remodeling, Worthington, MN

ERICKSEN ELLISON AND ASSOCIATES, INC. (EEA)

2635 University Avenue West Ste. 200 St. Paul, MN 55114-1231 Tel: 651/632-2300 Fax: 651/632-2397 E-mail: info@eeaengineers.com www.eeaengineers.com Established 1954 Other Office: Grand Rapids, MN

William F. Thiesse PE James H. Art PE Todd A. Peterson Terri A. Fleischhacker David L. Larson **RCDD**

Firm Personnel by Discipline Mechanical Engineers **Electrical Engineers** Registered Communications Distribution Designers (RCDD) Technical 22 Administrative Total

2

The consulting engineering firm of EEA specializes in electrical and mechanical design of HVAC, plumbing, fire protection, specialty lighting, power, security/surveillance and electronic communication system designs for educational correctional, manufacturing, and recreational facilities, libraries, offices, clean rooms and data centers. EEA provides systems commissioning, operator training, and facilities infrastructure planning.

5 Federal Correctional Institute (FCI), Sandstone, MN; Walter Library Technology Center, University of Minnesota, Minneapolis, MN; Macalester College Central Chiller Plant and Campus Distribution, St. Paul, MN; Elmer L. Andersen Library and the Minnesota Library Access Center, University of Minnesota, Minneapolis, MN; Eli Lilly Corporation Data Center, Indianapolis, IN; Grinnell College Energy Center, Grinnell, IA

ERICKSEN ROED & ASSOCIATES, INC.

2550 University Avenue West Ste. 201-S St. Paul, MN 55114 Tel: 651/251-7570 Fax: 651/251-7578 Established 1985

Alfred "Bud" Ericksen

Thomas E. Amundson

James D. Roed

PF
PF
PF
PE
20
15
2
37

PE

PE

Full-service structural engineering for a broad range of facility types. Our experience includes design and construction observation for industrial, retail, medical, commercial, educational, computer centers, high-rise offices, parking facilities, sports and recreational facilities, as well as conduct investigations of existing structures for remodeling and renovation, building review studies and forensic engineering. We are registered as Professional Engineers in Minnesota and throughout the United States.

Fairview Southdale Hospital Expansion, Parking Ramp and Skyway, Edina, MN; Piper Jaffray Tower, Minneapolis, MN; Lawson Commons Office Building, St. Paul, MN; Guthrie Theater, Minneapolis, MN; University of Minnesota Riverbend Commons Dormitory and Parking Ramp, Minneapolis, MN; Target Retail/Office Building, 900 Nicollet, Minneapolis, MN

FOSTER, JACOBS & JOHNSON, INC.

345 Canal Park Drive, Ste. 200 Duluth, MN 55802 Tel: 218/722-3060 Fax: 218/722-1931 E-mail: mail@fjj.com Established 1922

James R. Johnson Charles F. Jacobs

Firm Personnel by Discipline Mechanical Engineers **Electrical Engineers** Technical 2 Administrative Total 16

Full Service Mechanical and Electrical consulting services, including design and preparation of contract documents for fire protection, plumbing, HVAC, controls, lighting, power distribution, communications and life-safety systems and construction administration. We offer computer-aided selection of M/E equipment and generate drawings using AutoCad with "soft desk" building services.

Blue Cross/Blue Shield Adjudication Centers, Virginia and Aurora, MN; City of Duluth Public Works and Utilities Maintenance Garage, Duluth, MN; Grand Rapids Middle School, Grand Rapids, MN; Mercy Hospital Surgery Expansion, Moose Lake, MN; Minnesota Air National Guard Aircraft Maintenance Complex, Duluth, MN; University of Minnesota, Duluth Kirby Plaza Addition and Remodel, Duluth, MN

FUTRELL FIRE CONSULT & DESIGN, INC.

8860 Jefferson Highway Osseo, MN 55369-1500 Tel: 763/425-1001 Fax: 763/425-2234 E-mail: scottf@ffcdi.com www.ffcdi.com Established 1989

Scott A. Futrell PE (WI) Rich Pehrson PhD, PE (MN, SD) PE (MN, ND) Ken Strand

Firm Personnel by Discipline Fire Protection Engineers **Technical** Administrative Total

Continued on next column

Fire Protection Engineering, fire sprinkler, fire alarm and fire suppression system design, risk analysis, plan and engineering report reviews, special inspections, commissioning, expert witness, third-party review and project management.

U.S. Steel, Mountain Iron, MN; 3M Company, Nationwide; University of Minnesota, Various Projects Minneapolis Campus, MN; Guardian Angels School, Chaska, MN; St. Paul Public Housing Authority, Front High Rise, St. Paul, MN; Minot Air Force Base, Minot, ND

GAUSMAN & MOORE ASSOCIATES, INC.

1700 West Highway 36 700 Rosedale Towers Roseville, MN 55113 Tel: 651/639-9606 Fax: 651/639-9618 E-mail: gmmail@gausman.com www.gausman.com Established 1935 Other Offices: Duluth, MN; Portland, OR

James W. Giefer James A. Keller D. Lane Hersey PE Robert B. Full PE Firm Personnel by Discipline Mechanical Engineers **Electrical Engineers** 5 Other Engineer 1 Technical 30 Administrative 11 Total 54

Gausman & Moore provides mechanical, electrical, fire protection, and technology design engineering services. Areas of Special Expertise include sustainable design (LEED Accredited), mission critical power systems, forensic investigations, lighting design, and commissioning.

Target Stores, Nationwide; Saint Paul Public Schools, MN; Minneapolis Public Schools, MN; University of Minnesota Duluth, Weber Music Performance Hall; Cloquet Community Memorial Hospital, MN; Brookdale Library and Service; Wooddale Church; University of Minnesota, Numerous Projects Statewide; U.S. Army Corps of Engineers Training and Vehicle Maintenance Centers, Nationwide; Christopher &

Banks, Nationwide

HALLBERG ENGINEERING, INC.

1750 Commerce Court White Bear Lake, MN 55110 Tel: 651/748-1100 Fax: 651/748-9370 E-mail:

hei@hallbergengineering.com www.hallbergengineering.com Established 1984

Joseph W. Hallberg PE James R. Penkivech Larry A. Jensen PE Firm Personnel by Discipline Mechanical Engineers 12 **Electrical Engineers Technical** 18 Administrative 5 Total 41

Mechanical, electrical, technology and facility management engineering services for educational, retail, commercial, institutional, health care and correctional facilities. Our Commissioning group performs mechanical and technology commissioning for new and existing facilities. The Schools for Energy Efficient TM (SEE) program provides schools with the tools to save energy and avoid energy costs.

Turck Hall, Wallace Hall and Kagin Commons, Macalester College, St. Paul, MN; Earle Brown Elementary, Brooklyn Center, MN; District Energy Chiller Plant, St. Paul, MN; Chaska Schools District-wide System Assessments. Chaska, MN; Buffalo Hospital, Buffalo, MN

HAMMEL, GREEN AND **ABRAHAMSON**

Kenny Horns

Yan Shagalov

6

701 Washington Avenue North Minneapolis, MN 55401 Tel: 612/758-4000 Fax: 612/758-4199 E-mail: info@hga.com www.hga.com Established 1953 Other Offices: Rochester, MN; Milwaukee, WI; Sacramento, Los Angeles and San Francisco, CA Leigh Harrison

PE

PE

Jeff Harris PE Chuck Cappellin PF. Firm Personnel by Discipline Civil Engineering 4 Structural Engineering 24 Mechanical Engineering 42 Electrical Engineering 27 **Industrial Engineers** 2 Architects 208 Other Professionals 33 Technical 47 Administrative 94 **Total Staff** 484

HGA has engineering expertise in the design of a broad range of facility types. In addition to traditional HVAC, structural and electrical systems, HGA has specialists in clean environments, industrial processes, central plants, utility infrastructure, existing condition surveys, property evaluations, telecommunictions systems design, healthcare technology applications design and specialty lighting. HGA engineers serve both prime consultants and sub-consultants.

CentraCare Health System, St. Cloud, MN; General Mills, Inc., Golden Valley, MN Grace Church, Eden Prairie, MN; Walker Art Center Expansion, Minneapolis, MN; Minnesota Departments of Agriculture and Health, St. Paul, MN; The Community Medical Center of the Woodlands, The Woodlands, TX

INSPEC, INC.

5801 Duluth Street Minneapolis, MN 55422 Tel: 763/546-3434 Fax: 763/546-8669 E-mail: fking@inspec.com www.inspec.com Established 1973 Other Office: Milwaukee, WI; Chicago, IL

Dwight D. Benoy PE Gary C. Patrick AIA Michael D. Remington PE Richard W. Phillips David W. Campbell Fred W. King

Firm Personnel by Discipline Civil Engineers Structural Engineers Architects Technical 55 Administrative 21 90 Total

3

INSPEC, INC. is an independent consulting engineering/architectural firm specializing in roofs, pavements, waterproofing, and exterior walls. Other services include investigations, laboratory testing, surveys/evaluations, management programs, design/consultations, and construction administration.

Glensheen, Duluth, MN; Minnesota State Capitol, St. Paul, MN; American Swedish Institute, Minneapolis, MN; Minnesota State Colleges and Universities (54 campuses), Statewide; Anoka County, MN; University of Chicago, Chicago, IL

KARGES-FAULCONBRIDGE, INC.

670 West County Road B St. Paul, MN 55113 Tel: 651/771-0880 Fax: 651/771-0878 E-mail: kfi@kfi-eng.com Established 1996

William J. Karges, Jr. James A. Faulconbridge

Firm Personnel by Discipline Mechanical Engineers **Electrical Engineers Chemical Engineers** Commissioning Other Professional Administrative Total

Continued on next column

Karges-Faulconbridge, Inc. (KFI) is a unique engineering firm of engineers, designers, professional estimators, and commissioning specialists registered in 50 states and the District of Columbia. KFI is LEED Certified, and provides engineering and construction management services for industrial, institutional, healthcare and commercial organizations. KFI clients rely on this unique combination of skills and experience to address issues of constructability. phasing, maintenance and operations early in the design stage, conserving time and resources.

Sovbean Extraction Plant, Cenex Harvest States, Fairmont, MN; Minnesota Veterans Home, Infrastructure Improvements, Hastings, MN; New Vegetable Oil Refinery, AGP, Hastings, NE; Robbinsdale School District 281, Ventilation Systems, Robbinsdale, MN; Estimating for Minneapolis-St. Paul International Airport Expansion,, Bloomington, MN; Commission-

KRECH, O'BRIEN, MUELLER & WASS, INC.

ing Osseo Schools, Osseo, MN

6115 Cahill Avenue Inver Grove Heights, MN 55076 Tel: 651/451-4605 Fax: 651/451-0917 E-mail: jkrechkomw@komw.com www.komw.com Established 1987

Iames H Kroch

PE

PE

James H. Kieth	PE
Michael J. Lisowski	PE
Daniel J. O'Brien	AIA
Brady R. Mueller	AIA
Brian C. Wass	AIA
_	
Firm Personnel by Discipline	
Structural Engineers	3
Architects	7
Architectural Interns	3
Other Professional	2
Technical	6
Administrative	3
Total Staff	24

KOMW offers structural engineer-

15 ing, architecture, interior design 3 and construction management services. Registered structurally in 21 8 states, typical structural projects include industrial, commercial, insti-5 tutional, ecclesiastical, forensic, 52 agricultural, blast resistance, and hazardous waste containment. Specialties include granular material storage, hazardous liquid containment, corrosive environments, blast resistance, and aluminum greenhouse design.

Continued on next column

Van Hoven Resource Recovery, South St. Paul, MN; Ultra Machining Company, Monticello, MN: Caribou Coffee, Minneapolis, MN; Novartis Nutrition Corporation, St. Louis Park, MN; Waterous Company, South St. Paul, MN; St. Louis Park Arena, Renovation, St. Louis Park, MN

L S ENGINEERS, INC. 200 South Main Street Le Sueur, MN 56058 Tel: 507/665-6255 Fax: 507/665-6818

E-mail: lseng@mnic.net Established 1988

Robert L. Sprengeler William P. Lehnertz Firm Personnel by Discipline Structural Engineers **Technical** Administrative Total 9.5

L S Engineers provides structural engineering services for all building types in the areas of industrial, commercial, religious, institutional, residential, manufacturing, as well as specialized structures for water and wastewater plants. L S Engineers provides a full range of services including feasibility studies, investigations, construction documents, cost estimates, and field observations.

Hermann Monument Restoration, New Ulm, MN; Minnesota Dept. of Transportation District Building, Mankato, MN; Voyager Bank Building, Shakopee, MN; Medallion Corporate Office Building, Waconia, MN; Klein Business Center, Chaska, MN; Progressive Impressions International Building Addition, Bloomington, IL

LANDFORM

510 First Avenue N., Ste. 650 Minneapolis, MN 55403 Tel: 612/252-9070 Fax: 612/252-9077 E-mail: info@landformmsp.com www.landform.net Established 1994 Other Office, Phoenix, AZ

Darren Lazan **RLA** Stephen Johnston PE Carolyn Krall AIA **Howard Rogers** LS Marlin "Butch" Larsen Stanley Blackmore

Continued on next column

Firm Personnel by Discipline	
Civil Engineers	18
Architects	4
Other Professional	9
<u> Fechnical</u>	12
Administrative	7
Гotal	50

Landform provides civil engineering, planning, landscape architecture, land surveying and architectural services. Our broad range of local and national clients includes developers, architects, corporate/ commercial groups, builders, and government entities. Specialties are hospitality, office, residential, housing, institutional, and medical.

Robbinsdale Transit-oriented Development, Robbinsdale, MN; Target Stores, Multiple Locations; Methodist Hospital, St. Louis Park, MN; Stone Bay, Orono,

MN; Fairview Hospital; Apple-

1.5 bee's Restaurants, Multiple

Midwest Locations

LARSON ENGINEERING OF **MINNESOTA**

3524 Labore Road White Bear Lake, MN 55110 Tel: 651/481-9120 Fax: 651/481-9201 E-mail: info@larsonmn.com www.larsonengr.com Established 1979 Other Offices: Naperville, IL; Appleton, WI; Norcross, GA; St. Louis, MO; Scottsdale, AZ

Lee Granquist PE Kesh Ramdular PE Henry Voth PE Firm Personnel by Discipline Civil Engineers 4 Structural Engineers 22 7 Technical 7 Administrative **Total Staff** 40

Larson Engineering of Minnesota offers engineering services in both STRUCTURAL (including architectural, curtain wall and industrial), and CIVIL (including pavement management and athletic facilities).

STRUCTURAL: Sauk Rapids High School, Sauk Rapids, MN; Disney Concert Hall, Los Angeles, CA (CW); Boston-Logan Airport, Boston, MA (CW). CIVIL: Sartell Elementary School, Sartell, MN; Northfield Middle School, North-

field, MN; St. Croix Lutheran High School, West St. Paul, MN

LHB

21 West Superior Street, Ste. 500
Duluth, MN 55802
Tel: 218/727-8446
Fax: 218/727-8456
E-mail: joellyn.gum@lhbcorp.com
www.lhbcorp.com
Established 1966
Other Offices: Minneapolis, MN
•

William D. Bennett	PE
Joseph D. Litman	PE
Jay B. Bergman	PE
Timothy E. Korby	PE
David M. Sheedy	PE
David T. Williams	PE
Eiro Dorgonnol by Discipline	

Firm Personnel by Discipline	
Civil Engineers	12
Structural Engineers	9
Mechanical Engineers	6
Electrical Engineers	5
Architects	24
Other Professional	16
Technical	39
Administrative	29
Total Staff	140

LHB's services include survey, civil, electrical, mechanical, and structural engineering. We design engineering systems for buildings, site development and infrastructure for clients in government, public works, education, healthcare, pipeline, workplace and housing. LHB specializes in high performance design which considers a balance of social, economic and environmental concerns and responsibilities.

City of Duluth West Leg Natural Gas Main Pipeline, Duluth, MN; MN/DOT's TH 169 Lake Pokegama Causeway, Grand Rapids, MN; Reconstruction of Historic Bridge L8502/69640, Duluth, MN; Lowry Avenue Corridor Revitalization, Minneapolis, MN; Minnesota Air National Guard Surface Transportation Facility HVAC, St. Paul, MN; Bethel Wastewater Treatment Facility, Bethel, MN

LIGHTOWLER JOHNSON **ASSOCIATES**

700 Main Avenue Fargo, ND 58103 Tel: 701/293-1350 Fax: 701/293-1353 E-mail:

sdewald@lightowlerjohnson.com www.lightowlerjohnson.com Established 1954 Other Office: Moorhead, MN

Continued on next column

Stevan Dewald	PE
Steve Goldade	AIA
Cameron Merkel	PE
Timothy Olson	PE
Winton Johnson	PE
Joe Lightowler, Jr.	PE
-	
Firm Personnel by Discipline	
Civil Engineers	2
Structural Engineer	1
Mechanical Engineers	4
Electrical Engineers	2
Architects	4
Other Professional	1
Technical	22
Administrative	3
Total	38

Lightowler Johnson Associates is a full-service Engineering and Architectural firm. We provide mechanical, electrical, civil and structural engineering, land surveying and architectural services. We work with architects and clients to create exceptional projects.

Soybean Processing Plant, Brewster, MN; Holiday Inn Express, Grand Forks, ND; Barracks Reconstruction, Fort Buford, ND; Steam Line Replacement, St. Peter Regional Treatment Center, St. Peter, MN; AmericInn, Cedar Rapids, IA; Municipal Pool Replacement, Milnor, ND

LOUCKS ASSOCIATES

7200 Hemlock Lane, Ste. 300 Minneapolis, MN 55369 Tel: 763/424-5505 Fax: 763/424-5822 E-mail:

home@loucksmclagan.com www.loucksmclagan.com Established 1976 Other Offices: Loucks McLagan, St. Paul, MN

Thomas G. Loucks	
Jeffrey A. Shopek	P
Paul J. McGinley	PL
Michael J. St. Martin	P
Richard Licht	PL
John Bergh	
- 1.5. 1 1.5. 1.5. 1.5. 1.5. 1.5. 1.5. 1.	

<u>—</u> 1.55 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 /	
Firm Personnel by Discipline	
Civil Engineers	7
Other Professionals	6
Technical	32
Administrative	4
Total Staff	49
_	

Continued on next column

Services include site layout, grading, storm water conveyance systems, water quality retention ponds, wetland mitigation, EAW/EIS documents. Phase I and II ESAs, groundwater contamination, ALTA title surveys, site feasibility studies, comprehensive plan amendments, rezoning, permitting and approvals for industrial, commercial, retail, corporate campus, assisted living community, senior co-op, townhome and education facilities. Allianz Corp. Facility, Golden Valley, MN; Protein Design Lab

(PDL), Brooklyn Park, MN; Boston Scientific, Maple Grove, MN; Gramercy Co-op Senior Housing, Statewide Locations, MN; North Quadrant/Sibley Mixed Use, St. Paul, MN; Minnesota State Fair, St. Paul, MN

LUNDQUIST, KILLEEN, POTVIN & BENDER, INC. (LKPB)

1935 W. County Rd.B2, Ste. 300 Saint Paul, MN 55113 Tel: 651/633-1223 Fax: 651/633-1355 E-mail: nbart@lkpb.com www.lkpb.com Established 1969

Leonard A Lundquist

Leonard A. Lundquist	IL
John M. Killeen	PE
Peter A. Potvin	PE
Gayland J. Bender	PE
Stephen J. Gentilini	PE
Firm Personnel by Discipline	
Mechanical Engineers	10
Electrical Engineers	6
Technical	21
Administrative	8
Total	45

Lundquist, Killeen, Potvin & Bender, Inc. (LKPB) is a mechanical and electrical consulting engineering firm that was founded in 1969. The firm provides services to clients in diverse settings such as post-secondary education, health care, corporate, commercial and municipal environments.

Middlebury College, New Library, Middlebury, VT; Regions Hospital Master Planning, St. Paul, MN; Minnesota State Capitol Infrastructure Upgrades, St. Paul, MN; University of Minnesota Landscape Arboretum, New Visitor Center, Chanhassen, MN; Carlson Towers, Minnetonka, MN; Mill City Museum, Minneapolis, MN

MATTSON/MACDONALD, INC.

1516 West Lake Street, Ste. 102 Minneapolis, MN 55408 Tel: 612/827-7825 Fax: 612/827-0805 E-mail:

davem@mattsonmacdonald.com Established 1983

David H. Macdonald	PE
Stephanie J. Young	PE
- Control of the same	
Firm Personnel by Discipline	
Structural Engineers	8
Technical	3
Administrative	1
Total	12

Structural engineering services for commercial, educational, industrial, institutional and residential buildings. Design of new buildings, renovation and restoration of existing buildings. Experienced in the restoration and adaptive re-use of historic buildings.

Milwaukee Road Depot Restoration, Minneapolis, MN; Stone Arch Lofts, Minneapolis, MN; Wayzata City Hall and Library, Wayzata, MN; Uptown Transit Station, Minneapolis, MN; Hosanna Lutheran Church, Lakeville, MN; Boutwells Landing Seniors Community, Oak Park Heights, MN

McCONKEY JOHNSON SOLTERMANN, INC.

3144 Hennepin Avenue South Minneapolis, MN 55408 Tel: 612/822-6950 Fax: 612/822-8385 E-mail: mjseng@qwest.net Established 1978

Richard W. Johnson	PE
Christian Soltermann	PE
Firm Personnel by Discipline	
Structural Engineers	4
Technical	2
Administrative	1
Total	7

Structural engineering consulting services for commercial, industrial, institutional, public and residential projects. Rehabilitation and remodeling of existing structures. Structural investigations and reports. Licensed in 24 states.

Lac Courte Oreilles Casino and Hotel, Hayward, WI; Eckankar Spiritual Center, Chanhassen, MN; 700 Grand, Saint Paul, MN; Word of Peace Lutheran Church, Rogers, MN; Citizen State Bank of Clara City, Clara City, MN; Granite City Food and Brewery, Various Locations

MEYER, BORGMAN & JOHNSON, INC.

12 South Sixth Street, Ste. 810 Minneapolis, MN 55402 Tel: 612/338-0713 Fax: 612/337-5325 E-mail: jglasper@mbjeng.com www.mbjeng.com Established 1955 Other Office: Duluth, MN

Daniel E. Murphy Michael J. Ramerth

Firm Personnel by Discipline Structural Engineers Technical Administrative Total

Provides structural engineering services for all building types including educational, medical, commercial, parking, industrial, advanced technology, historic renovation, recreational, entertainment, correctional, religious, housing, and forensic, totaling approximately \$350 million in new construction annually. Services include feasibility studies, analysis, design, construction documentation, field observation, special inspections and parking ramp condition surveys.

Wells Fargo Home Mortgage, Minneapolis, MN; Minneapolis Heart Hospital, Abbott Northwestern, Minneapolis, MN; Minneapolis Art Institute/Children's Theater Expansion, Minneapolis, MN; Regis Center for Art, University of Minnesota, Minneapolis, MN; St. Mary's Duluth Clinic, Duluth, MN; 301 Kenwood Condominiums, Minneapolis, MN

MICHAUD COOLEY ERICKSON

333 South Seventh Street Ste. 1200 Minneapolis, MN 55402 Tel: 612/339-4941 Fax: 612/339-8354 E-mail:

rtaylor@michaudcooley.com www.michaudcooley.com Established 1946

Dean A. Rafferty Monty L. Talbert Douglas C. Cooley Joseph A. Tennyson

Firm Personnel by Discipline Mechanical Engineers **Electrical Engineers** Administrative Total

Continued on next column

MCE designs HVAC, plumbing, fire protection, electrical, illumination, security, life safety, audio visual, building automation and special system engineering. The firm also provides feasibility and deficiency studies, reports, master planning, tenant representation and fit-up services, commissioning, facilities management, and indoor air quality analysis.

Wells Fargo Shoreview Operations Center, Shoreview, MN; Guthrie Riverfront Theatre, Minneapolis, MN; Saint Paul Cathedral, St. Paul, MN; University of Minnesota Regis Center for Art, Minneapolis, MN; Allianz Life Headquarters, Golden Valley, MN; Woodwinds Health Campus, Woodbury, MN

MJP ASSOCIATES, LTD.

PE

PE

25

4362 Oakmede Lane White Bear Lake, MN 55110 Tel: 651/426-7037 Fax: 651/426-6643 E-mail: mike@mjp-associates.com www.mjp-associates.com Established 1993

Michael J. Preston

Firm Personnel by Discipline Structural Engineers Administrative Total 1.5

Specialized structural engineering services tailored to high-end residential projects, specialized component evaluation, and miscellanous structures including investigative studies, feasibility studies, structural analysis and design, preparation of contract documents, and construction observation.

Curved Steel Stair Structures, Lakeville, MN; Walgreen's Pharmacies Exterior Metal Studs, Various Locations; Gearen Residence, Minneapolis, MN; Field Stone Retaining Walls, Various Locations

The MOUNTAINSTAR GROUP, INC.

7800 Metro Parkway, Ste. 212 Bloomington, MN 55425 Tel: 952/851-3085 Fax: 952/851-3086 E-mail: mohara@mtstar.com www.mtstar.com Established 1988

60 43 Michael A. O'Hara, PE 16

119 Continued on next column

Fire protection, building and fire code consulting compliance, safety, special inspections of smoke control systems and performancebased design. Specialized Areas: code quivalencies and alternate methods of construction

Best Buy Headquarters, Richfield, MN; Walker Art Center, Minneapolis, MN; Minneapolis Institute of Arts, Minneapolis, MN; Light Rail, Mall of America, Bloomington, MN; Minneapolis Central Library, Minneapolis, MN; Minnesota Public Radio, St. Paul, MN

PAULSON & CLARK ENGINEERING, INC.

2352 East County Road J White Bear Lake, MN 55110 Tel: 651/407-6056 Fax: 651/407-6476 E-mail: pac@paulsonclark.com www.paulsonclark.com Established 1998

Daniel S. Paulson Bruce A. Clark

1

.5

Firm Personnel by Discipline Structural Engineers Mechanical Engineers **Electrical Engineers** Technical Total 13

We provide traditional engineering services including structural, mechanical, and electrical engineering. We also specialize in security system consulting, design and implementation services.

Best Buy Campus Security System Design, Richfield, MN; Hennepin County Government Center Duress and Alarm System, Minneapolis, MN; Robbinsdale School District (ISD #281) High School Renovations, Robbinsdale, MN; New Brighton Public Safety Building and Fire Station, New Brighton, MN; South Dakota Army National Guard Surface Equipment Maintenance Facility, Mitchell, SD; St. Ambrose Church, Woodbury, MN

POWRTEK ENGINEERING, INC.

20900 Swenson Drive, Ste. 570 Waukesha, WI 53186 Tel: 952/854-0203 Fax: 952/854-0403 E-mail: debbiez@powrtek.com www.powrtek.com Established 1995 Other Office: Minneapolis, MN 952/854-0203

Continued on next column

Greg Sadowski PE Firm Personnel by Discipline **Electrical Engineers** 2 Lighting Engineers (NCQLP) 1 Other Professional 1 Technical 2 Total 6

Powrtek's design experience includes architectural, municipal, industrial, and transportation (roadway and aviation) projects from conceptual planning through construction administration. Related systems include: energy audits, feasibility studies, power distribution, speciality lighting, security, fire alarm, and communications. Other systems include: telemetry, ground fault current and tred analysis. machine controls and PLC, etc.

Miller Park Baseball Stadium, Milwaukee, WI; AT&T, General Consulting Services; Alterra Office Building, Wauwatosa, WI; General Mitchell International Airport Parking Structure, Milwaukee, WI; Muskego High School, Muskego, WI; John H. Batten Airport, Racine, WI

REIGSTAD & ASSOCIATES

2

2

3

6

192 West 9th Street, Ste. 200 St. Paul, MN 55102 Tel: 651/292-1123 Fax: 651/292-8015 E-mail: greigstad@reigstad.com www.reigstad.com Established 1979 Other Office: Biloxi, MS

Gordon H. Reigstad PE, PhD, SE

Firm Personnel by Discipline Structural Engineers 12 Technical 16 Administrative 4 32 Total

Provides structural design for all types of projects utilizing steel, concrete, masonry, and timber systems, along with pre-stressed and post-tensioned concrete and space frame systems. Specialty structural designs include multi-story floating buildings, along with marine design, barge modifications, and mooring dolphins and, since 2001, providing anti-terrorist designed structures for military.

University of Minnesota Girls' Hockey Facility, Minneapolis, MN; Whitney Hotel Conversion, Minneapolis, MN; Shingle Springs Casino Resort, Sacramento, CA; Mohawk Casino Resort, Monticello, NY; Hard Rock Casino Resort, Biloxi, MS; Bachelor Enlisted Quarters, Keesler AFB, Biloxi, MS

RLK-KUUSISTO, LTD.

6110 Blue Circle Drive, Ste. 100 Minnetonka, MN 55343 Tel: 952/933-0972 Fax: 952/933-1153 E-mail: info@rlk-kuusisto.com www.rlk-kuusisto.com Established 1959 Other Offices: Hibbing, Duluth and Ham Lake, MN

John Dietrich ASLA
Vern Swing PE
John Jamnick PE
Michele Caron PE
Gary Brown PE
Joe Samuel PE
Firm Personnel by Discipline

Civil Engineers 41
Architects 5
Other Professionals 35
Technical 1
Administrative 12
Total 94

RLK-Kuusisto, Ltd. is a professional consulting firm specializing in civil engineering, transportation, surveying, planning and landscape architecture. We provide services to developers, property owners, and municipalities who focus on commercial, residential, industrial and infrastructure redevelopment. Specialized services are site development approval, value engineering, and is comprehensive to site specific engineering design and detail.

National Market Center, Blaine, MN; Valley Green Corporate Center, Shakopee, MN; Gift of Mary Children's Home, Eagan, MN; Crystal Shopping Center Redevelopment, Crystal, MN; Savage Crossings, Savage, MN; Upsher-Smith Corporate Campus, Maple Grove, MN

SCHOELL & MADSON, INC.

10580 Wayzata Boulevard, Ste. 1 Minnetonka, MN 55305 Tel: 952/546-7601 Fax: 952/546-9065 E-mail: mail@schoellmadson.com www.schoellmadson.com Established 1956 Other Office: Elk River, MN

— Dana Swindler
Kenneth Adolf PE
Daniel Nickols RLS
Lee Koppy PE

Continued on next column

Firm Personnel by Discipline	
Civil Engineers	
Other Professional	1
Technical	2
Administrative	
Total	4

Civil engineering (commercial, residential, industrial, retail), municipal, site planning, landscape architecture, system studies, design and construction/contract administration. Land surveys, ALTA, CIC, GPS, Topographic, Construction and As-Built. Wetland, natural resource services, environmental site assessments, cultural resources/archaeological assessment, regulatory compliance and permitting.

Shakopee Public Utility Service Center, Shakopee, MN; Wooddale Church, Eden Prairie, MN; Wolf Lake Professional Center, St. Louis Park, MN; Stone Creek Village, Plymouth, MN; Gander Mountain, Lakeville, MN; Sandstone Federal Correctional Facility, Sandstone, MN

SEBESTA BLOMBERG

2381 Rosegate
Roseville, MN 55113
Tel: 651/634-0775
Fax: 651/634-7400
www.sebesta.com
Established 1994
Other Offices: Boston, MA; Chicago, IL; Ames, IA; Rochester, MN;
Rosslyn, VA; Dallas, TX; Colorado
Springs, CO; Shanghai PR China
Contact: Brad Kafka

_	
James J. Sebesta	PE
Paul J. Blomberg	PE
Rebecca T. Ellis PE	
John A. Carlson	PE
Dean R. Sharpe	PE
Oleksa P. Breslawec	PE
Experience of the second second second	
Firm Personnel by Discipline	

i iumproforus, ^{es} un la fer	
Firm Personnel by Discipline	
Mechanical Engineers	77
Electrical Engineers	26
Chemical Engineers	5
Civil Engineers	4
Structural Engineers	2
Environmental Engineers	4
Architect	1
Other Professional	73
Administrative	31
Total	223

Sebesta Blomberg is a specialty engineering and management consulting firm providing services to institutional, industrial, health-care, energy and government markets nationwide. Services include: utility infrastructure modernization and optimization, building systems design and analysis, com-

missioning, architectural lighting, controls and automation, process engineering, power generation, transmission and distribution, facilities management support, training and documentation, and construction services.

University of Minnesota, Minneapolis, MN; The Pentagon, Arlington, VA; 3M, Saint Paul, MN; University of Maryland at College Park, College Park, MD; Mayo Foundation, Rochester, MN; Minnesota Historical Society, Saint Paul, MN

SHORT ELLIOTT HENDRICKSON INC. (SEH)

Butler Square Building, Ste. 710C 100 N. 6th Street Minneapolis, MN 55403 Tel: 612/758-6700 Fax: 612/758-6701 www.sehinc.com Established 1927

Other MN Locations: St. Paul, Minnetonka, St. Cloud, Brainerd, Duluth, Virginia, Grand Rapids, Gaylord, Glencoe, Rochester and Worthington

Other Locations: Chippewa Falls, Rice Lake, Wausau, Madison, Appleton and Milwaukee, WI; Chicago, IL; Lake County and Gary, IN; Sioux Falls, SD; Bozeman, MT; Cheyenne, WY; Boulder, Denver, Westminster, Fort Collins and Pueblo, CO; Cedar Rapids, IA (Satellite Office)

AIA

AIA

David Pillatzke

Brad Forbrook

Nancy Schultz

Doug Parrott	PE
John Hinzmann	PE
Steve Gausman	AIA
🚊 e e. a A utrelana	
Firm Personnel by Discipline	
Civil Engineers	263
Structural Engineers	10
Mechanical Engineer	2
Electrical Engineers	17
Architects	17
Other Professional & Eng.	93
Technical	243
Administrative	125
Total	770
—	
Early complete supplications of some	14

Full-service professional consulting firm specializing in civil, structural, electrical, mechanical, traffic, transportation, environmental and waste resources engineering, architecture and landscape architecture; GIS; community planning and construction administration. Projects include industrial/educational/institutional sector projects.

Continued on next column

U.S. Fish and Wildlife Interpretive Center, Oak Harbor, OH; Mound Public Safety Facility, Mound, MN; Airport Control Tower, St. Cloud, MN; Fortune Bay Golf Resort Club House, Vermillion, MN; Arrival/Departure Building, Redwood Falls, MN; Government, Forestry and Maintenance Facility for Washburn County, Shell Lake, WI

SLL/LEO A DALY

730 2nd Avenue South, Ste. 1100 Minneapolis, MN 55402 Tel: 612/338-8741 Fax: 612/338-4840 E-mail: gnfern@leoadaly.com www.leoadaly.com Established 1915

Other Offices: Atlanta, GA; Dallas, Austin, Fort Worth, Houston, San Antonio, and Waco, TX; Hong Kong; Honolulu, HI; Las Vegas and Los Angeles, CA; Miami, FL; Omaha, NE; Phoenix, AZ; Washington, D.C.

S,	Robert E. Egge	AIA
nd	Charles M. Ault	PF
	Howard F. Goltz	AIA
	Jerome A. Ritter	AIA
ls,	-	
p-	Firm Personnel by Discipline	
ica-	Civil Engineers	2
IN;	Structural Engineers	12
	Mechanical Engineers	16
er,	Electrical Engineers	12
	Architects	35
	Other Professional	2
	Administration	17
	Total	96
PE	_	

SLL/LEO A DALY (formerly Setter Leach & Lindstrom) offers civil, structural, mechanical, electrical and technology-engineering services with a full complement of registered professionals in each discipline. As a full-service architecture, engineering and interior design firm of 1100, LEO A DALY has a wealth of experience designing a broad range of new construction and renovation projects.

Fairview Red Wing Medical Center, Red Wing, MN; Veterans Affairs Medical Center, Tomah, WI; Education Center, Ellsworth Air Force Base, SD; Visitors Quarters, Kunsan Air Force Base, Republic of Korea; SYSCO Foods, Fargo, ND; Safeway Inc., Auburn, WA

STEEN ENGINEERING, INC.

5430 Douglas Drive North Crystal, MN 55429 Tel: 763/585-6742 Fax: 763/585-6757 E-mail: steen@steeneng.com

Established 1993

Mark R. Brengman Steven M. Youngs Eugene A. Striefel

Firm Personnel by Discipline Mechanical Engineers **Electrical Engineers** Technical Administrative Total

Steen Engineering provides all aspects of Mechanical and Electrical Engineering design from feasibility studies to construction administration for its clients. We have design experience in corporate, municipal, medical, hospitality, institutional and retail - providing HVAC plumbing, fire protection, lighting, power distribution, life safety, automatic temperature control, energy and analysis and deficiency studies.

Bloomington Care Center, Bloomington, MN; White Rock Bank, Red Wing, MN; City Bella Grammercy, Richfield, MN; Hotels/Motels (AmericInn, Country Inn & Suites, Hilton and Marriott), Nationwide; Numerous Independent, Assisted and Skilled Nursing Facilities, Nationwide; Buffalo Wild Wings, Nationwide

STRUCTURAL DESIGN ASSOCIATES, INC.

6860 Shingle Creek Parkway Ste. 201 Minneapolis, MN 55430 Tel: 763/560-5300 Fax: 763/560-5400 E-Mail: sda@sdaeng.com www.sdaeng.com Established 1989 Other Office: Brainerd, MN

Gregory J. Duerr

Firm Personnel by Discipline Structural Engineers **Technical** Administrative Total

Continued on next column

Structural Engineers providing design, construction documents. reports, and construction administration services for projects in the educational, industrial (manufacturing, warehousing, equipment supports, and repairs), commercial, municipal, medical, and renovation fields. Services provided to Architects, Owners, Contractors, Developers and others.

Waconia Middle School, Waconia, MN; Buffalo High School, Buffalo, MN; Green Bay Packaging Addition, Wausau, WI; Conference Center for Andersen Windows, Bayport, MN; Redwood Falls Hospital Addition, Redwood Falls, MN; Brentwood Hills Apartments, Inver Grove Heights, MN

3D/I

PF

6

60 South Sixth Street Minneapolis, MN 55402 Tel: 763/545-1355 E-mail: degenhardt@3di.com www.3di.com Established 1953

Other Offices: Albuquerque, NM; Austin, Dallas, Houston, Longview and San Antonio, TX; Los Angeles, Sacramento, San Diego and San Francisco, CA; Miami and Orlando, FL; Phoenix, AZ; Salt Lake City, UT; Washington, D.C.

Robert Degenhardt

Robert Huddleston	PE
Robert Struve	PE
Barry Badinger	CCM
William Huttinga	
Kevin Becker	CCM
_	
Firm Personnel by Disciplin	ne
Civil Engineers	12
Mechanical Engineers	9
Electrical Engineers	5
Environmental/Refrigeration	n
Engineers	3
Architects	36
Other Professional	402
Technical	24

3D/I is a company of project managers, construction managers, architects, engineers and environmental consultants. We design,

build, manage and consult on

projects for educational, government and commercial clients.

Continued on next column

Administrative

Total

PE

St. Joseph's Medical Center, Brainerd, MN; Westonka Public Schools, Mound, MN: Nobles County Prairie Justice Center, Worthington, MN; Grand Meadow Public Schools, Grand Meadow, MN; Jackson County Courthouse and Justice Center, Jackson, MN; Park Nicollet Health Services, Minneapolis, MN

TKDA 1500 Piper Jaffray Plaza 444 Cedar Street Saint Paul, MN 55101-2140 Tel: 651/292-4400 Fax: 651/292-0083 E-mail: deitner.we@tkda.com www.tkda.com Established 1910 Other Office: Aurora, IL

Richard N. Sobiech William E. Deitner Robert A. Bover Gary M. Christensen Vincent T. Montgomery Dean A. Johnson

AIA

2

66

Firm Personnel by Discipline Civil Engineers Structural Engineers Mechanical Engineers **Electrical Engineers** Transportation Engineers Architects Other Professional Technical Administrative Total

Planning, design, and construction engineering for mechanical, electrical, structural, municipal, environmental, highway/bridge, railroad, airport, architectural and landscape architectural projects.

Light Rail Transit Maintenance Facility, Minneapolis, MN; Metro Transit Control Center, Minneapolis, MN; Airfield Lighting Electrical Center, MSP International Airport; City of North St. Paul City Hall, 93 Police and Fire Station, MN; Eagan Central Park Community Center, Eagan, MN; Marathon Ashland Petroleum Administrative Building, St. Paul Park, MN

ULTEIG ENGINEERS, INC.

P.O. Box 1569 Fargo, ND 58107 Tel: 701/237-3211 Fax: 701/237-3191 E-mail: info@ulteig.com www.ulteig.com Established 1944 Other Offices: Minneapolis, MN; Sioux Falls, SD; Bismarck, ND

Bob McCauley PE Dan Sargeant PE Walt Gregory RLS Mark Sornsin PE Todd McInerney PE Loren Winters PE Firm Personnel by Discipline Civil Engineering 43 Structural Engineering 20 Mechanical Engineering 5 Electrical Engineering 23 Other Engineering 40 Other Professional/Technical 71 PF. PE Administrative 18 Total PE 220

Commercial Electrical for electric.

data, emergency power, and security systems; Mechanical Engineering for HVAC automation/ temperature control, and plumbing; FIRE Protection Engineering for protection and suppression; Structural Engineering - for variety of buildings and structures; Site Design for commercial and private development, parks and sports complexes; Civil Engineering for water, wastewater, and storm water systems; Hydrology and Hydraulic Services; Municipal Engineering; Airports, Bridges and Transportation Engineering; Survey Services, including legal; topographic; ROW acquisition; construction staking; ALTA; GPS, platting; and underground utilities.

Bismarck Municipal Airport Terminal, Bismarck, ND; King Science Hall Addition, Minnesota State University at Moorhead (MNSCU System), Moorhead, MN; Joint Use Facility, Moorhead/Clay County/MNDOT; St. Joseph's Hospital, Brainerd, MN; New Horizon Day Care Center, Minneapolis Metro Area, MN; Jonathon Montessori School. Chaska, MN

VAN SICKLE, ALLEN & ASSOCIATES, INC.

2955 Xenium Lane North, Ste. 10 Plymouth, MN 55441 Tel: 763/559-9100 Fax: 763/559-6023 E-mail:

sstangeland@vansickleallen.com www.vansickleallen.com Established 1978 Other Offices: Hutchinson, KS

Richard Van Sickle Scott Stangeland PE S. (Shawn) Shahriar PhD, PE Keith Jacobson PE Gene Haldorson Bernie Jansen

Firm Personnel by Discipline Civil Engineers Structural Engineers Technical 14 Administrative 4 Total 35

Structural and Civil Engineering services for commercial, corporate, educational, retail, government, health care, hotel, senior housing and parking facilities. Engineering and planning for industrial and agribusiness including food and dairy processing facilities; shipping and handling facilities; grain storage, handling and processing; ethanol facilities; manufacturing; and power plants.

New Guthrie Theater, Minneapolis, MN; Fort Snelling Army Reserve Building, Fort Snelling, MN; University of Minnesota Morris, Morris, MN; Meridian Crossing, Richfield, MN; Sysco Food Warehouse Expansion, Moundsview, MN; Apple Valley City Hall, Apple Valley, MN

WENZEL ENGINEERING INC.

10100 Morgan Avenue S. Bloomington, MN 55431 Tel: 952/888-6516 Fax: 952/888-2587 E-mail: weieng@mcleodusa.net www.wenzelengineering.com Established 1990

Patricia A. Cole	PE
Jeff A. Segar	PE
Steve Rivard	PE
Firm Personnel by Discipline	
Structural Engineers	4
Technical	1
Administrative	1

Continued on next column

Total

Lowell E. Wenzel

Wenzel Engineering, Inc. is a Structural Engineering Firm dedicated to understanding and meeting our clients' goals. Our experience includes new facilities, renovations, additions, and investigations for commercial, industrial, public, retail, educational, religious and healthcare clients.

Iowa State Capitol Renovation. Des Moines, IA; American Indian Resource Center, Bemidji State University, MN; Marketplace Lofts, Hopkins, MN; Lamoreaux Building Addition, Minneapolis, MN; Pfizer Corporation, Holland, MI; Leech Lake Tribal College, Cass Lake, MN

WESTWOOD PROFESSIONAL SERVICES, INC.

7599 Anagram Drive Eden Prairie, MN 55344 Tel: 952/937-5150 Fax: 952/937-5822 E-mail: wps@westwoodps.com Established 1972 Other Offices: St. Cloud and

Brainerd, MN

Dennis Marhula Dwight Jelle Martin Weber LS Paul Greenhagen LS Richard Wiebe LA LS Bruce Grivna Firm Personnel by Discipline Civil Engineers

17 Other Professional (LA & RLS) 24 Technical 68 Administrative 11 Total

Westwood is a Minnesota-based, full-service engineering consulting firm, specializing in land development, and providing planning, landscape architecture, surveying, civil engineering and traffic services to private and public agencies. Westwood was established in 1972, and now operates three Minnesota offices, with the headquarters in Eden Prairie and branch offices in St. Cloud and Brainerd, MN

Continued on next column

PE

6

West Ridge Market, Minnetonka, MN; Super Targets, Lakeville and Blaine, MN; Evermoor, Rosemount, MN; Liberty on the Lake, Stillwater, MN; Cobblestone Lake, Apple Valley, MN; Minneapolis Traffic Operations Project, Minneapolis, MN

WIDSETH SMITH NOLTING

Baxter, MN 56425-2720 Tel: 218/829-5117 Fax: 218/829-2517 E-mail: wsnbrd@wsn-mn.com www.msn-mn.com Established 1975 Other Offices: Alexandria. Bemidji, Crookston, MN; Grand Forks, ND

2000 Industrial Park Road South

Bruce Buxton Don Anderson Reed Becker AIA Kevin Donnay Paul Richards AIA David Kildahl

PF

PE

PE

Firm Personnel by Discipline Civil Engineers Structural Engineers Mechanical Engineers **Electrical Engineers** Sanitary and Transportation Engineers Architects 14 Other Professional 14 **Technical** 61 Administrative Total 140

WSN is a fully-integrated engineering, architecture, land surveying and environmental services firm. Our engineering group includes: Civil - primarily municipal and water resources; Structural - project specific, industrial and bridges; Mechanical/Electrical -HVAC, plumbing and lighting. Our complete team solves a variety of design and construction issues from planning to completion.

ISD 181 Forestview Middle School, Baxter, MN; Sanitary District (ALASD) System Improvements, Alexandria Lakes Area, MN; City of Crookston Well System Improvements, MN; Tastefully Simple, Inc. Office and Warehouse Renovation and Expansion, Alexandria, MN; Crow Wing County CSAH 20, MN; Water Tower #3, Bemidji, MN

YAGGY COLBY ASSOCIATES

717 Third Avenue SE Rochester, MN 55904 Tel: 507/288-6464 Fax: 507/288-5058 E-mail: info@yaggy.com www.yaggy.com Established 1970 Other Offices: Mendota Heights, MN; Mason City, IA; Delafield, WI

Donald Borcherding PE, RLS Chris Colby AIA, CID Jose Rivas AIA Scott Samuelson PF Robert Ellis

Firm Personnel by Discipline Civil Engineers Other Engineers 36 Architects 5 Other Professional 47 Technical 30 Administrative 26 AIA Total 168

> Municipal, transportation, land development, geo-technical, environmental and structural engineering including streets, water supply and storage, storm sewer systems, highways, airports, subdivision design, water and wastewater treatment, and environmental studies, bridges, box culverts, buildings and other structures. Surveying activities for engineering, land and geodetic control surveys.

Rochester Fire Station #3, Rochester, MN; Somerby Golf Community, Byron, MN; Barnes & Noble/Food Court, Apache Mall, Rochester, MN; Merchants Bank, Rochester, MN; IOWA/DOT Rest Areas; Highway 52 Design Team, Rochester, MN

The M.I.N.D. Institute

University of California-Davis Medical Center Location: Sacramento, CA Client: University of California Firm-of-record: Hammel Green and

Abrahamson, Inc. Project principal: Stephen Short, AIA

Project principal: stephen short, AIA Project manager: Bill O'Malley, AIA Design principal: Bill Blanski, AIA

Project architect: Jim Butler, AIA Additional project-team members:

Craig Bailey; Krista Biason; Vlad Chahovskoy, AIA; Ilde DeAlba, AIA; Mark Donatelle; Rich Firkins; Ryan Fish; Gary Fishbeck; George G. Gorbatenko Jr.; Tao Ham; Creed Kampa, AIA; Joe Krumpelmann, AIA; Peter Haag, Steve Peper; Emanouil Spassov; George Strand;

Chris Vickery; Megan Wang Construction manager: ProWest PCM, Inc.

Interior design: HGA

Landscape architecture: HGA Mechanical engineering: HGA Lighting designer: HGA Plumbing: Nelson & Associates Electrical engineering: HGA

Telecommunications: M. Neils

Engineering, Inc.

Civil engineering: Omni-Means Structural engineering: Anderson & Doig Interior color advisor: AJ Paron-Wildes Face brick: Corning Donahue Exterior stone: Vetter Travernelle Casework: Fisher Hamilton

Wall covering: Maharam

Flooring systems/materials: Lee's and Bentley Window systems: Walters and Wolf

Metal panels: Urata Concrete: Pacific Erectors Translucent panels: Knoll Imago

Millwork: Artisans

Photographer: Richard Barnes

Northern Illinois Medical Center Ambulatory Care Center

Location: McHenry, IL
Client: Centegra Health System; vice
president, operations, Sandi Davis
Architect: BWBR Architects, Inc.
Principal-in-charge: C. Jay Sleiter, AIA
Project manager: Ananth Shankar, AIA
Project architect: Jeff Krueger
Design leader: Jim Davy, AIA
Medical planner: Glenn Manni
Interior designer: Susan Clark

Staff architect: David P. Leighly, AIA Code reviewer: Roger Larson, AIA

CAD technician: Pete Mikkelson Construction administrator: Brad Fitzsimmons Structural/mechanical/clectrical engineering:

KJWW Engineering Consultants, P.C. Engineering principal-in-charge: Paul

Engineering principal-in-charge: Paul VanDuyne Structural engineer: Dan Huntington

Mechanical engineer: Paul Parry Electrical engineer: Richard Gilson Civil engineering: Smith Engineering

Consultants, Inc
Project manager: Timothy Hartnett

Project manager: Innotify natrictic Project engineer: Joseph Vavrina Construction manager: M.A. Mortenson Company

Principal-in-charge: Greg Werner Construction executive: Larry Arndt Project manager: Bill Igel Field engineer: Ryan Poropet Landscape architect: Douglas Hills Associates Landscape architect: Douglas Hills Owner's representative: Hammes Company Senior project executive: David Connolly Project executives: Rodney Casey, Bob Droese Structural steel/erector: McFarland Manufacturing Co./J.P. Cullen & Sons Excavator: Snelten, Inc.

Face brick and stone contractor: Jimmy'Z Millwork and cabinetwork contractor: Redbud Ridge Custom Shop, Inc.

Flooring systems/materials: Johnson Flooring Company

Wall and ceiling finishes: International Decorators, Inc.

Window systems: Prime Architectural Metal and Glass

Architectural metal panels: MetalMaster/RoofMaster, Inc.

Concrete work: Boller Construction Company, Inc.

Mechanical contractor: Sherman Mechanical, Inc.; Martin Petersen Company Electrical contractor: Carey Electric

Contracting, Inc. Photographer: Philip G. Prowse

Northwoods Dental

Location: Plymouth, MN Client: Scott Scharf, D.D.S. Architect: Paul Meyer Architects, Inc. Principal-in-charge: Paul Meyer, AIA Project team: Tom Wasmoen AIA, Todd Donskey

Design/build mechanical: Horwitz, Inc. Design/build electrical: Egan-McKay Electrical Contractors, Inc.

Interior finishes: Beth Nordstrom, BDH&Young

General contractor: Scott Builders, Inc. Stone: cultured stone by Brock White; Installed by Hollenback & Nelson, Inc.

Cabinetwork: Damschen Wood, Inc. Flooring & ceiling materials: Minnesota Acoustics, Inc.

Painting & wallcovering: Swanson & Youngdale, Inc.

Dental millwork & equipment: Patterson Dental Supply, Inc.

Photographer: Landmark Photography & Design

Gasterland Residence

Location: Minneapolis, MN Client: Hans and Barb Gasterland Architect: McMonigal Architects, LLC Principal-in-charge: Rosemary McMonigal, AIA General contractor: Luloff Inc. Structural engineer: Jim Krech, Krech, O'Brien,

Mueller & Wass

Energy and systems consultants: Steve Klossner, Mark LaLiberte Multiple chemical sensitivities consultation:

Multiple chemical sensitivities consultation Mary Oetzel

Feng shui: Mary Jane Pappas

Landscape designer: Cole Burrell with Native Landscape Design & Restoration Landscape contractor: Brubaker Landscape

Design Photographer: Andrea Rugg

Molecular and Cellular Biology Building

University of Minnesota - Minneapolis Campus Location: Minneapolis, MN

Client: University of Minnesota

Architect: Perkins & Will

Principals-in-charge: Chuck Knight, AIA (Minneapolis); Richard M. Smith, AIA Project managers: Marianne O'Brien, AIA,

Walter Bissonnette

Project architect: Geoff Brooksher, AIA Project lead designer: Ralph Johnson, FAIA Project team: Ted Davis, AIA (designer); Randy

Guillot, AIA (designer); Melody Devine (interiors); Bruce Corzine, AIA, Doug Pierce, AIA, Trevor Dickie

Structural-engineering team: Ericksen Roed Mechanical-engineering team: BR+A Electrical-engineering team: BR+A

Civil-engineering team: Van Sickle, Allen & Associates, Inc.

Lighting designer: BR+A
Interior design: Perkins & Will
Owner's representative: Armlin North
Contractor: Mortenson
Landscape architect: Close Associates
Landscape project team: Andrew Caddock
Face brick: Mn Brick and Tile and Ochs
Stone: American Artstone
Cabinetwork: Haldeman Homme

Window systems: TruTherm
Architectural metal panels: MG Mgrath –
Alucobond & Centria

Concrete work: Mortenson Millwork: Mid-Canada Photographer: Don F. Wong

Hazelden Meditation Center

Location: Center City, MN Client: Hazelden Foundation Architect: Meyer, Scherer & Rockcastle, Ltd. Principal-in-charge: Jeffrey Scherer, FAIA

(design), Thomas Meyer, AIA, (partner peer review)

Project manager: Paul Hannemann, AIA Project architects: Paul Hannemann, AIA Project lead designer: Jeffrey Scherer, FAIA Project team: Adam Back, Malini Srivistava, Min Wang, Rebecca Foss

Structural-engineering team: Meyer, Borgman and Johnson, Inc., (Rollie Johnson, project manager)

Mechanical-engineering team: Jack Snow & Associates (Jack Snow, project manager)

Electrical-engineering team: Kaeding & Associates (Scott Hutchins, project manager)

Civil-engineering team: Clark Engineering (Leonard Linton, project manager) Lighting designer: Carla Gallina (MS&R) Interior design: Jodi Klammer (MS&R) Construction manager: Watson-Forsberg Company (Dale Forsberg, project manager)

Landscape architect: Coen & Stumpf Associates, Inc. (Shane Coen, project manager)

Landscape project team: Shane Coen and Nathan Anderson

Stone: Tompkins bluestone, installed by Axel H. Ohman

Flooring systems/materials: Bamboo flooring by Architectural Sales of Minnesota

Window systems: Wood/aluminum windows by H Window

Concrete work: Cast-in-place concrete foundation by Axel H. Ohman Construction

Millwork: Douglas fir millwork by Heebink Architectural Woodwork: installed by Northside Construction

Photographer: Rik Sferra

the truth is,

we don't save historic buildings

We help you do it.

PRESERVATION ALLIANCE OF MINNESOTA

www.mnpreservation.org 612-341-8140 info@mnpreservation.org

Support our Advertisers

ADVERTISING INDEX

Scott Acker, Realtor, p. 64 AIA Documents, p. 61 AIA Minnesota, p. 66 & Cov. IV Anchor Block Company, p. 16 H. Robert Anderson/DPIC, p. 59 Architectural Consultants, p. 2 AVI Systems, p. 24 Borgert Products, Inc., p. 63 Classical 89.3 WCAL, p. 8 County Materials, p. 20 Directory of Consulting Engineering Firms, pp. 67-77 Duluth Timber Company, p. 63 Ellerbe Becket, p. 54 Engan Associates, P.A., p. 54 Horty Elving, p. 55 Icynene Insulation, p. 22 Jordan Architects P.A., p. 56 KKE Architects, p. 56 **International Masonry** Institute, p. 10 Lakes and Plains Regional Council of Carpenters and Joiners, Cov. III Dennis J. Linder & Associates, p. 61 Manomin Reseawn Timbers, p. 59 Marvin Windows and Doors, p. 1 McMonigal Architects, p. 18 Minnesota Brick & Tile, p. 12 Minnesota Prestress Association, p. 6 Lon Musolf Distributing, p. 65 Oliver Architects, p. 54 Portfolio of Health, Healing & Wellness, pp. 53-57 Quest Development, Inc., p. 4 SileStone, p. 14 Simply Marvy Lighting Design, p. 24 TCH Twin City Hardware, p. 16 TSP Architecture, Engineering, Construction, p. 57 Wells Concrete Products, Cov. II



St. Paul Healing Center for Victims of Torture

Who: KKE Architects, Inc., Minneapolis, Minnesota; Rob Grundstrom, Assoc. AIA, project designer.

What: This new healing center for the Center for Victims of Torture is the Minnesota-based organization's

second facility. CVT works locally, nationally and internationally to heal the wounds of torture on individuals, their families and their communities, and also to stop torture worldwide. The pro-bono project is an extensive renovation and addition to the 1886 Zene Bohrer house in the Historic Hill District of St. Paul. The architectural philosophy behind the renovation is to provide a homelike setting in the meeting and healing rooms, in addition to modern exam and physical-therapy rooms, so clients can receive torture-treatment care and rehabilitative services in a warm and sensitive setting.

Where: St. Paul, Minnesota.

When: Completed January 2004.

CARPENTERS UNION

RECOGNIZED AS THE INDUSTRY LEADER

110 Years of Quality

or Your Next Project

Request the work be done by Union Contractors

Ask your architect to specify contractors that participate in STATE CERTIFIED APPRENTICESHIP and TRAINING PROGRAMS

Make sure your Contractor has the Union Stamp of Approval

WE OFFER

- Highly Skilled Carpenters
- State Accredited Apprenticeship Programs
- Affiliated Contractors Groups



hotographs provided by: akeny Kell Architects, St. Paul

FOR MORE INFORMATION CONTACT

42 Raymond Ave. t. Paul, MN 55114 arpmn@mtn.org Lakes and Plains Regional Council

CARPENTERS AND JOINERS

Phone (651) 646-7207 Fax (651) 645-8318

Toll Free (877) 426-3729

